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OPENING OF NEW UNIVERSITY BUILDINGS

BY

H.M. The King.

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"Contents" inside cover.

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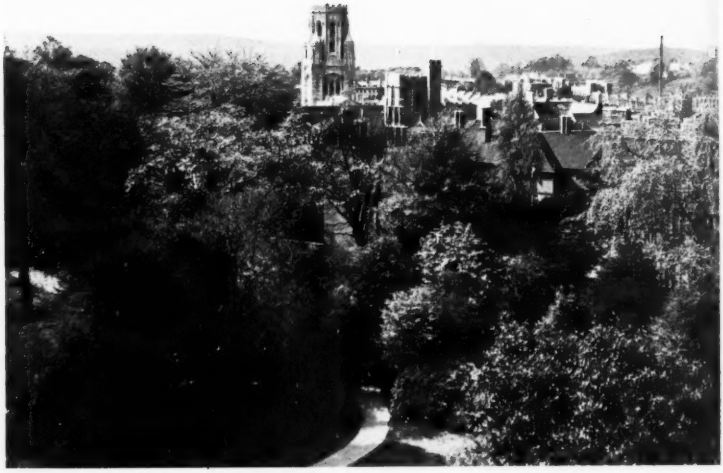


UNIVERSITY OF BRISTOL.

THE MEMORIAL AND ARROWSMITH TOWERS WITH THE GROUNDS OF THE UNIVERSITY.

Seen from the Physics Laboratory.

The Bristol Medico-Chirurgical Journal

" Scire est nescire, nisi id me
Scire alius scierit."

UNIVERSITY OF BRISTOL.

Royal Opening of the New Buildings.

On June 9th their Majesties the King and Queen will visit Bristol to open the new buildings of the University. The occasion will be a most notable one in the annals of the City and the University.

It is nearly three centuries since Dr. Dell, Cromwell's Chaplain, made the first suggestion that there should be a University in Bristol. His plan for provincial universities outside of Oxford and Cambridge met with no favour and has long been forgotten.

Higher learning met with no encouragement in Bristol until the decay of the Barber Surgeons Company in the early part of the eighteenth century stimulated some of the medical men on the Infirmary staff to give anatomical and other lectures for the benefit of their surgical pupils. In 1816 Dr. James Cowles Prichard conceived the project of founding a Medical School in connection with the Infirmary, " an institution which furnishes so many valuable opportunities for professional improvement." By 1830

various independent courses of lectures had been combined to form two recognised medical schools, viz. "The School of Anatomy and Medicine" in Limekiln Lane (recognised by the Apothecaries' Hall), and The Bristol Medical and Surgical School (recognised by the Royal College of Surgeons). A letter of Dr. Henry Clark's shows that in 1833 these two schools (or Anatomical Classes) were amalgamated to form "The Bristol Medical School."

Dr. Carrick delivered the inaugural address at the opening of this School on October 14th, 1833, and remarked at his conclusion that it appeared most desirable that a School of Medicine should form an integral part of the Bristol College. This idea seems never entirely to have been lost sight of by the teachers in the Bristol Medical School. When at last the University College was founded in 1877 some of the lecturers in the Medical School advocated complete incorporation of the School with the new College; but the teaching in the Medical School had been for some years previously of a low standard, and there was opposition from teachers who were reluctant to be brought under any critical supervision, so that the vote in favour of amalgamation was defeated. The Medical School remained autonomous with a mere "affiliation" to University College until 1892, when it was formerly "incorporated" in the College. Even after this "incorporation" the clinical part of the curriculum was managed independently of University College, and the students' fees for clinical instruction were paid directly to the staffs of the Royal Infirmary and General Hospital.

In 1909 King Edward VII. granted a charter to found the University of Bristol, whereby the University College and the Merchant Venturers' Technical College were merged into a new University. The incorporation of the Medical School was not even then made complete; the clinical part of the curriculum was still in fact a proprietary school

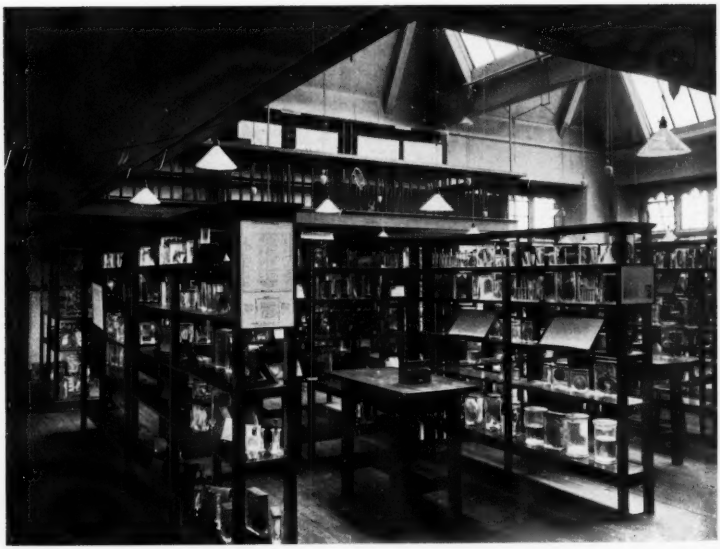
in the hands of the staffs of the two medical institutions. This partial autonomy of the Medical School was, however, unsatisfactory and was unfavourably commented on by the Universities Grants Committee of the Treasury, so that in 1922 the teachers of clinical subjects in the Medical Faculty surrendered to the University their proprietary rights and the whole medical curriculum came under University management. Thus the Bristol Medical School with its long and honourable tradition continues as one of the most vigorous Faculties in the University to whose foundation it had so actively contributed, even if at times it has dissembled its filial affection and pride by a certain degree of independence.

* * * * *

Now that incorporation has been effectually carried out, and the seal of Royal approval is about to be set on the University and the new buildings which the munificence of the Wills family has called into being, it will not be inappropriate to review the opportunities and advantages which the medical student can enjoy to-day in Bristol.

The preliminary studies of Chemistry, Biology and Physics are carried on in some of the newest and most up-to-date laboratories in the kingdom. The Chemical wing of the University was built in 1911, and leaves little to be desired in the way of housing and equipment. The new Physics wing, built and endowed by the late Mr. H. H. Wills, is nearing completion close by the Royal Fort in Tyndall's Park. The intermediate subjects of Anatomy and Physiology have found quarters that would astonish the students of the old University College days. The dissecting room occupies the former Great Hall of the College facing the Grammar School field, and annexed to it are the Anatomy Theatre and Museum. The department of Physiology is situated in part of the wing by the Arrowsmith Tower ; the lecture

theatre is large and admirably planned, but the laboratories are already too small to accommodate the large number of medical students. Above the Physiological theatre and laboratories is the Department of Pathology with its laboratories and museum. Pathology is a large and ever-growing department which provides not only for the instruction of students but also for an immense amount of pathological investigation for private doctors, public institutions, and municipal authorities in the surrounding counties as well as for the Ministry of Health (particularly as regards food poisoning outbreaks). The pathological museum is arranged on a new and most efficient plan. The departments of Medicine, Surgery, Obstetrics, Ophthalmology, Otology and Laryngology have a mere nominal habitat in a



Pathological Museum.

Medical Library.

small lecture room, and two professors' rooms adjoining the pathological museum. Although these departments find such scanty accommodation in the University buildings, they can spread their wings wider and more freely in the great hospitals of the City.

In the new buildings which the King will open in June there is, however, a fine Medical Library containing several collections of books which originally formed the separate libraries of the Royal Infirmary, the General Hospital, the Bristol Medico-Chirurgical Society and University College. This year the Medico-Chirurgical Society gave their whole library unreservedly to the University. Thus the Medical Library in our sixteen-year-old University can boast the possession of books which began to be collected into libraries nearly two hundred years ago, and contains

many valuable old volumes and complete sets of periodicals which may well be envied by far older institutions.

The hospitals of the city furnish great wealth of clinical material which the management committees place gladly at the service of the University. The Bristol Medical School has always prided itself on the practical experience which its students can gain in clinical medicine. The number of cases available for each individual student is unsurpassed anywhere in the country. The Royal Infirmary and the General Hospital between them contain 630 beds, which are allotted as follows:—

	B.R.I.	B.G.H.
Medical	72	70
Surgical	126	92
Gynæcological	29	28
Obstetric	24	20
Maternity cots	24	12
Ophthalmic	9	4
Ear, Nose and Throat ..	16	14
Children	36	13
Skin	4	2
Isolation, etc.	22	13

For obstetric work each of these institutions has a large "district" where students attend midwifery cases in their own homes.

There are also Out-patient Clinics in every department, and in addition Venereal, Ante-natal and Infant Clinics. Two special hospitals (the Eye Hospital, 40 beds, and the Children's Hospital, 109 beds) have made their wards and out-patient departments available for University students.

The large modern Poor Law Hospital at Southmead (566 beds) has been opened to students by the City Guardians.

Instruction in infectious diseases is given at the City Fever Hospital, Ham Green (Fever Section 135 beds,

Bristol Royal Infirmary.

Sanatorium Section 136 beds), by arrangement with the City Health Committee and the Medical Officer of Health, and the same authorities admit students to study tuberculosis at the Municipal Dispensaries and Frenchay Park Colony for children (35 beds).

There is a small well-equipped Orthopædic Hospital where students are welcomed (36 beds).

Bristol General Hospital.

Special wards exist at Southmead Hospital for mentally deficient children (100 beds).

University courses in Mental Diseases and Insanity are given at the City Mental Hospital, Fishponds, by the Medical Superintendent.

Thus it will be seen that all the various authorities in Bristol responsible for hospital management have taken up the most friendly and helpful attitude towards the University and its medical students, both undergraduate and post-graduate.

An important feature in the curriculum is the amount of resident work permitted to unqualified students. Whilst acting as surgical ward dressers each student resides for one week in rotation as "resident dresser for the week." In this capacity the dresser sees all interesting emergencies, both in-patient and casualty, as well as assisting at immediate operations.

The midwifery course is exceptionally well-arranged. The student resides in hospital for six weeks; during the first two weeks he attends in the lying-in wards, and during the last month he visits the patients on the district, confining them in their own homes.

* * * * *

Postgraduate studies have been for some years well organised in the series of lectures by those of our clinicians who are most fitted to assist medical practitioners who feel the need for being made more efficient in the newer developments of medicine, surgery and pathology. The President of the Bristol Medico-Chirurgical Society, Dr. J. O. Symes, in his Presidential address, has contributed an authoritative article on the subject to this Journal.

* * * * *

The Colston Research Society has already done much to foster and by financial assistance to promote research in

The Victoria Rooms, Clifton, now the Club Rooms of the University of Bristol Union.

The Memorial Tower, from Berkeley Square.

connection with the University, and the scientific and clinical investigations in the realms of medicine and surgery are worthy to rank with the achievements attained in the other branches of science. The Society has earned the gratitude of the Medical Faculty, and needs only more generous support of the public benefactor to give further benefit in the evolution of medicine.

* * * * *

Apart from the instructional side of the curriculum Bristol is fortunate in being able to offer to undergraduates special residential advantages. Students who do not live at home are not now compelled to find isolated and ill-furnished lodgings.

For men there are two Halls of Residence: Mortimer House, Clifton, with accommodation for 35 students, and Canynge Hall, with accommodation for 78 students. A third hall is about to be built at Downside, Durdham Down, which will be designed on college lines in its own spacious grounds. For women two adjoining houses, Clifton Hill House and Callander House, together with the neighbouring Clifton Manor House, provide excellent accommodation in some of the finest mansions of Clifton. The University of Bristol has from the outset aimed at being a residential University, and in the short space of sixteen years has succeeded in laying the foundation of true collegiate life for both men and women students.

J. A. Nixon.

A NOTE ON ASTHMA.[1]

BY

J. R. CHARLES, M.D., F.R.C.P.,

Physician, Bristol Royal Infirmary.

OF asthma, as is well known, there are very many etiological factors, *i.e.* underlying causes, many of which are hereditary, and also numerous exciting causes. From time to time special attention is devoted to one or other of these innumerable factors. At times the influence of metabolic disturbances holds the field; at others the so-called exudative diathesis. More recently the attention of the physician has been devoted to sensitisation by all sorts of foreign proteins. Excess of various forms of food, *e.g.* acids and fats, various emotional disturbances, the influence of climate, and local affections of the nose, throat and so forth all play their part. All of these may produce attacks of spasmodic asthma.

Intrathoracic pressure may, however, be a determining factor, as *e.g.* in the case of a small aneurism, though as a rule the true cause of this will become manifest. The importance of seeking for some such cause has recently been stressed in a paper read before the Royal Society of Medicine by Lapage and Adams (November 24th, 1924). The point of some interest was the frequency with which they found intrathoracic glands and local lesions in the chest as determining factors, and they regard their action as not

[1] A Paper read at a Meeting of the Bath and Bristol Branch of the British Medical Association, March 25th, 1925.

entirely mechanical. Among 68 cases of asthma in children they found by clinical and X-ray examination definite lesions in 50, viz. :—

Bronchial glands in 31.
Mediastinal glands in 6.
Cervical glands in 5.
Fibrosis of root of lungs in 18.
Adhesions in 5.
Chronic bronchitis in 11.

One child suddenly coughed up large pieces of debris from a calcareous gland. Luckily he did not choke, and as a result of the mass coming away he was very much better and his asthmatic attacks subsided.

With regard to intrathoracic pressure, it might be supposed that the symptoms would be continuous, but a very considerable degree of pressure may be existent with prolonged freedom from any attacks, and the attacks when they do occur may be so typical of asthma produced by other causes that the true cause in the individual case may be readily overlooked.

In the case under observation the patient had always been a person with a very considerable degree of good breathing capacity, so that when at school he was able to do long distance cross-country runs with considerable ease, and sometimes beat records, and in the ordinary way, even with considerable exertion, had never had any shortness of breath. But throughout his life he had been subject at intervals to typical asthmatic attacks, by which I mean that, having gone to bed perfectly free and comfortable in breathing, he would wake up at 2 or 3 a.m. with severe dyspnœa and all the usual symptoms of asthma, which would clear up in the usual way, leaving him free from it the

following day, perhaps to be repeated on subsequent nights.

On several occasions the dypsnœa had continued throughout the day and had been continuous, though worse, at night. Climate had a great deal to do with these attacks, *e.g.* on going to Cornwall some years ago the whole of this train of events occurred and remained persistent until he left. He went up to the Midlands, and immediately the whole condition subsided, and the conclusion was drawn that he was suffering solely from asthmatic trouble produced entirely by the climate. It was never suspected for one moment that he had any gross intrathoracic pressure. Sometimes it had been thought that exposure to the weather when motoring in an open car might have been an exciting cause of the attacks, but subsequent events threw great doubt on this supposition, because quite probably such attacks were produced by hemorrhage into an intrathoracic cyst following such exertions as winding up a refractory car, and not by exposure.

During last summer he noticed for the first time a slight enlargement of the thyroid which appeared just behind the right clavicle. Later on asthmatic attacks exactly the same as before became more frequent at night, and on one occasion the attack was so severe that he was unable to move at all for five hours, and then for the first time pressure was suspected as a possible cause. The attacks improved, but later on he had another, and was then X-rayed, which showed a definite shadow in the mediastinum on the right side bending the trachea over to the left, which proved to be due to an intrathoracic adenoma of the thyroid into which recent hemorrhage had taken place, which was successfully removed on November 26th, 1924, since which time no asthmatic attacks have occurred.

Both Mr. Berry, who did the operation, and Sir William

Hale White considered that this cyst was of very many years' duration and had been responsible for the whole of the trouble.

Here, then, was a case of typical asthmatic attacks occurring in the middle of the night, and definitely influenced by climate, which could only have acted as an accessory factor, the cause of which was entirely overlooked because it was never even suspected, but which could have been found almost certainly many years ago if the thought had occurred that the chest should be X-rayed; and therefore the example of this case is a plea for having an X-ray examination in any case of asthma which has not satisfactorily responded to treatment, to see if any form whatsoever of intrathoracic pressure may be at the root of the trouble.

Prolonged intermittency of attacks, nocturnal incidence of attacks, climatic influences on the attacks, and typical asthmatic characteristics of the attacks do not preclude the possibility of some such cause, as can quite definitely be learnt from this case.

The tumour which was removed by resection and enucleation was a well-encapsuled cystic adenoma weighing 6½ ozs. Microscopically it proved to be a simple unilocular colloid cyst, with recent hemorrhagic ooze into it. Many of the previous attacks of asthma had probably been due to similar hemorrhagic oozing following unusual exertion.

DIAGNOSIS OF THE DYSPEPSIAS.[1]

BY

A. RENDLE SHORT, M.D., B.S., B.Sc., F.R.C.S.,

Surgeon to the Bristol Royal Infirmary.

THE basis for the present discourse is a recent series of 100 cases of dyspepsia (not including any due to carcinoma) in which the notes were taken to a plan, nearly all examined by the X-ray screen in my presence, all verified by operation, and in nearly all the after-history is known.

Reviewing one's intellectual pilgrimage for the past twenty years, it is evident that the factors making for progress have been a ruthless scrapping of the old classification of the dyspepsias and the recognition of a new one; a better knowledge of physiology; disregard of hæmatemesis in the diagnosis of ulceration; and the regular use of X-ray screening (not plates).

ADVANCES IN PHYSIOLOGY.

It is now established that the normal stomach may show considerable deviations from the average, quite apart from the presence of any symptoms whatever. There is a hypertonic type, seen in 17 per cent. males and 7 per cent. females, in which the acidity of the gastric juice is high (0.2 per cent.), and the stomach examined by the X-ray screen is small, well braced-up, and empties rather rapidly, say in two hours or less. And there is a hypotonic type, seen in 4 per cent. males and 15 per cent. females, with low gastric acidity (0.1 per cent.), large dropped stomach, and slow emptying, say four or five hours. In about 4 per cent. cases HCl is absent altogether from the gastric juice, apparently without harm (though it is suggested that such

[1] A Paper read at a Meeting of the Bristol Medico-Chirurgical Society on Wednesday, April 8th, 1925.

persons may eventually develop pernicious anæmia). It is often impossible to tell from symptoms whether the patient belongs to the one group or the other. But although these two types are quite consistent with perfect health, there is definite morbidity attached to each. Pushed beyond a certain limit, or tampered with by faulty food habits on the part of the patient, or on account of a failure of the general health, characteristic symptoms appear. Those with the hypertonic stomach suffer from hunger; the hunger-sensations may become actually painful, and a duodenal ulcer, acute or chronic, may develop.

In the hypotonic type the tendency is to develop visceroptosis, constipation, etc.

Modern physiology has further taught us that the alimentary canal is arranged on what might be described as a lock-gate system, the sphincters corresponding to the locks. Traffic is not passed on from above until the all-clear signal is received from below, and *vice versa* when food is taken an effort is made to expedite the traffic farther down the canal. I have seen in a patient with extroversion of the ileo-cæcal valve, which is really a sphincter, a regular gush of ileal contents whenever food was taken by the mouth. This helps us to understand that if on account of appendicular trouble there is delay at the ileo-cæcal sphincter it may reflexly cause delay in the stomach. This has been verified by the delay in emptying of the stomach, by spasm seen with the X-rays, and by writhing visible on the operation table, principally at the pyloric end. In 55 per cent. cases there is also a secretion-reflex in the shape of hyperchlorhydria.

Another point of importance is the demonstration that after the age of four lymphoid nodules can be found in the gastric mucosa, especially along the lesser curvature. They tend to atrophy after middle life. It is these nodules which are apt to ulcerate and bleed.

HÆMATEMESIS.

It cannot be too strongly emphasised that even a large vomiting of blood is no proof whatever of the presence of a gastric or duodenal ulcer that can be found by operation. Cases of hæmatemesis of gastro-duodenal origin, and excluding splenic anæmia, cirrhosis of the liver, and acute infections, fall into three groups.

1. *Bleeding without gastric symptoms.*—These are mostly in young women, and even at autopsy, if they die (which they seldom do), it is usually difficult to find any source for the hemorrhage. Occasionally one sees a soft shallow ulcer as large as a sixpence, with an eroded artery. Here belong the cases called " gastrostaxis " by some.

2. *Bleeding with gastric symptoms,* such as pain, flatulence, vomiting, etc., but in which operation reveals no ulcer. In my experience of this group one generally finds an atrophic appendix without a lumen.

3. *Bleeding with gastric symptoms, due to gastric or duodenal ulcer,* which can be demonstrated at operation or autopsy.

It may be very difficult to differentiate the second and third of these groups, as the occurrence of the hæmatemesis is common to both. In my series 1 in 3 of the cases of peptic ulcer bled, and 1 in 6 of the cases of appendicular dyspepsia.

It is quite obvious where the blood comes from in the third group, but even at autopsy it may be difficult or impossible to discover the source in the first and second groups. At the London Hospital for three years a special search was made at all post-mortems for *little scars* in the gastric mucosa, and they found 149 small acute ulcers and 59 tiny scars in 3,761 autopsies, *i.e.* 5.5 per cent. The incidence was highest amongst women between eighteen and thirty.

Although these hemorrhages are so often associated with an atrophic appendix which has been undergoing quiet fibrosis, it must not be concluded that appendicectomy will necessarily prevent a return of the bleeding. In one of my cases such a return did occur some years after the operation. Probably the abnormality of the appendix is associated with, rather than causative of, changes in the lymphoid nodules in the gastric mucosa.

CLASSIFICATION.

The most useful classification of the dyspepsias is into three main groups, with several subdivisions in each. These are :—

1. *Functional Dyspepsia.*—The title is perhaps not quite explicit, but serves to indicate that no gross abnormality will be found either in the stomach or the alimentary canal.

Here belong acute and chronic gastritis from faulty food habits or alcoholism, or defective teeth. Here also the secondary dyspepsias accompanying phthisis, Bright's disease, the grave anæmias, and other serious constitutional disturbances. Here also the frankly hysterical manifestations, such as anorexia nervosa, functional vomiting, and ærophagia. And here yet again patients with hypertonic or hypotonic stomachs, suffering from an exaggeration of their diathesis.

The diagnosis ought not to give serious trouble. *Gastritis* is often diagnosed, seldom seen. It is characterised by much mucus in the vomit. Accessory signs are a furred tongue and deficient HCl in the test meal.

The frequent vomiting of early *phthisis* has to be borne in mind, and can usually be recognised by the signs in the chest.

When a patient, not obviously ill or suffering from intestinal obstruction or other grave disorder, keeps on

vomiting for weeks immediately any food or drink is taken but does not seem to lose flesh and there is little pain, it can only be hysterical. These patients are apt to go to every doctor in the town, and to exhaust their welcome everywhere, unless cured by psychotherapy. Aerophagia is another curious neurosis; the amount of gas which can be evolved in the stomach by fermentation is quite limited, and if a patient goes on belching wind gulp after gulp it is certain that they are merely swallowing air and bringing it up again. Some patients are capable of performing prodigies in this direction, especially if frightened or upset.

Patients with hypertonic stomachs, if they are run down in health or irregular in their meals or smoke too much, will often develop hunger-pain and water-brash. This is too transient and too easily cured by simple dieting and treatment to be attributed to a chronic callous duodenal ulcer; there may or may not be a tiny soft erosion of the mucous membrane.

The hypotonic group also may suffer from the faults of their diathesis, and when tired or "nervy," or after influenza, they get flatulence, discomfort after meals and a sense of weight and fulness, with constipation. Given a "rest cure," tonics, and support for their dropped viscera, with liquid paraffin for the bowels, they improve, at any rate for a time. Here belong the "atonic dilatation of the stomach" cases of the older books. Both the hypertonic and the hypotonic types are readily recognised by barium skiagraphy. The stomach may be found just as large and dropped in some patients who do not have symptoms as in some who do. There is no difficulty in distinguishing the hypotonic stomach from the dilatation due to pyloric obstruction. The former does not cause vomiting or wasting; the latter does both. A barium meal resolves all doubts. If the peristalsis is vigorous but nothing gets out through the pylorus, and even after

twelve or twenty-four hours most of the meal is still retained, there is definite obstruction. In the hypotonic stomach peristalsis is quiet, but some gets out, and most of the meal will have escaped in twelve hours.

Generally speaking, then, the functional dyspepsias are easily diagnosed, and easily relieved by medical treatment.

2. *Reflex Dyspepsia.*—This is an important and numerous group, much more numerous than the organic dyspepsias due to demonstrable lesions of the stomach or duodenum. Also, it is often difficult to diagnose, and refractory to medical treatment. Therefore the majority of the cases that are referred by the general practitioner to a surgeon belong to this group.

The source of the reflex may be located in the appendix, or in the gall-bladder, or there may be visceroptosis and intestinal stasis with a large, dropped, atonic cæcum, or the cause may be obscure.

It is very characteristic of the reflex dyspepsias that though they give a colourable imitation of the book symptoms of gastric or duodenal ulcer, there is generally some deviation from type. There may be complaint of pain after food, vomiting and hæmatemesis; but a careful history shows, in some of them, that the pain is *continuous*, always present but made rather worse by meals—this is highly suggestive (unless the patient is very ill from advanced cancer or deep ulceration). Or the vomit *may not relieve the pain*, which it almost invariably does in organic gastric disease (except, again, in advanced cancer). Or what is called pain does not really amount to more than discomfort; true ulcer nearly always causes indubitable pain. Hunger-discomfort is often due to reflex dyspepsia; hunger-pain suggests duodenal ulcer. Nevertheless, it must be admitted that sometimes there is real pain, and vomiting may give relief, and the pain may *not* be continuous, but quite definitely related to food.

Test meals do not help us much here, but barium skiagraphy is very valuable. The special signs of ulcer or cancer are not found. There may be some delay in emptying the stomach, but very little will be left after twelve hours. I have sometimes been able to demonstrate that after appendicectomy in such a case the emptying time has returned to normal. There may be reflex spasm nipping the stomach into two pouches, but it does not persist and can be abolished by atropine.

It is more difficult to say which viscus is the source of the reflex. If the *gall-bladder* is at fault the patient is usually a woman over forty, and fat. Flatulence is the main complaint. Discomfort may follow certain special articles of diet, such as cooked fats, or apples—the "qualitative dyspepsia" of American writers. Alkalies do not give relief, as they do in most other stomach disorders. The barium meal may show adhesions of the duodenum to the gall-bladder. Rarely one can see stone-shadows. Of course, if the patient gets an attack of gall-stone colic the nature of the case becomes perfectly clear.

In the appendicular cases there may or may not be tenderness or pain in the right iliac fossa. If there is not, and there is no history of a frank attack of acute appendicitis, the diagnosis is likely to be doubtful. The age and sex are much as in gastric ulcer. They sometimes get two or three attacks of really severe epigastric pain lasting a day or two, without a rise of temperature or any tokens of the appendicular origin. Barium skiagraphy may help by showing great delay at the ileo-cæcal valve, and if the appendix fills with bismuth, it may be tender, or as in one case under my care, verified by operation, there may be a concretion shown by the X-rays.

3. *Organic Dyspepsias.*—Here belong gastric ulcer, duodenal ulcer, cancer of the stomach, pyloric stenosis,

peri-duodenal adhesions, duodenal ileus, and leather-bottle stomach. Hour-glass stomach is merely a special case of gastric ulcer. Duodenal carcinoma does occur, but is rare and probably not diagnosable.

The organic dyspepsias, in comparison with those we have already discussed, are not very common, except, unfortunately, cancer.

Gastric ulcer.—The special feature in the diagnosis of this condition is the regular course of the symptoms, which may be conveniently remembered as the F.R.P.V.R. sequence. That is to say, they take *food*, then there is a period of *relief*, which in about a fourth of my cases lasted under half an hour but in three-fourths lasted from half an hour to an hour or more. Then comes pain, which may eventually be followed by *vomiting*, and the vomiting gives marked *relief* again. This regular sequence is of outstanding importance in arriving at a diagnosis. Let it be observed that they get *pain*, and not merely discomfort. Usually it is epigastric, but in five of my patients it was in the lower abdomen, and once or twice the diagnosis made was cancer of the colon. Often the history of pain is of many years' standing. Late in the case the pain changes in character and becomes continuous, and bores through into the back. This nearly always means, in my experience, that there is a deep ulcer invading the pancreas.

Patients with gastric ulcer nearly all vomit, but the frequency of the vomiting varies exceedingly. It does not usually come on until an hour or more after a meal. Hæmatemesis occurs in about a third of the cases, but it may have been many years ago. Occult blood can generally be found by repeated examination, either in the stools or fæces, but its diagnostic value is not very great.

In my experience the test meal is of little value in the

recognition of gastric ulcer. The HCl may be excessive, normal, or subnormal with equal frequency.

When symptoms of ulcer of the stomach have been present for seven years or more, and there is considerable emaciation, one may wisely suspect hour-glass stomach, but it cannot usually be recognised with confidence apart from skiagraphy.

The barium meal and X-ray screening often give great help in the diagnosis, but considerable clinical experience and much patience are required to avoid bad mistakes. Small soft ulcers are usually missed. Carman states that they can be found by watching the stream of barium entering the stomach, but I have not met with success yet by this method. Ulcers causing stenosis of the pylorus give rise to the evidences of dilated stomach with pyloric obstruction, which have already been discussed, but it will probably be impossible on X-ray signs alone to distinguish between ulcer, cancer, and simple stenosis at the pylorus. Gastric ulcers not at the pylorus show three principal signs: six-hour retention of the bulk of the meal; an islet or niche, where the barium has lodged in the cavity of a fairly large ulcer, and spasm pinching the stomach nearly across, from the greater curvature towards the lesser, just proximal to the ulcer. It is necessary to examine several times, at various periods after the meal, and to turn the stomach about with the hands, to demonstrate these signs. Several times I have been put on the right track by finding all the meal in the proximal pouch, giving an appearance of the stomach being too far to the left. Six-hour retention, by itself, is not diagnostic, and one needs to distinguish between the transient spasm occasionally seen in reflex dyspepsia and the intractable spasm of gastric ulcer. The X-ray picture of hour-glass stomach is perfectly distinctive, though the tyro may be deceived by the loculation of the shadow

due to pressure of the bodies of the vertebræ on the normal stomach. I have seen ludicrous mistakes made in this way.

Duodenal ulcer.—As is well known, this disease is much commoner in males than females (four to one in my series). The mnemonic is F.R.P. That is to say, the characteristic sequence is *food*, followed by a long *relief*, generally one and a half to two hours or more, then *pain*, which is severe, and so can usually be distinguished from the hunger discomfort of reflex dyspepsia or the merely hypertonic stomach. The relief after food is more definite and longer than in the case of gastric ulcer. They may get fat from over-eating in consequence. Vomiting is generally at long intervals only, and half of my cases never vomited at all. In old-standing cases, where the duodenum is narrowing, it is more in evidence. Water-brash is rather common. About a third of the patients get hæmatemesis.

A curious and unexplained feature both of gastric and duodenal ulcer is *periodicity*, that is to say they have periods of several weeks or months with symptoms, and then longer or shorter intervals free from all trouble. This does not mean that the ulcer has healed. It is of no great diagnostic value; such periodicity is occasionally seen in reflex dyspepsia, and is not constant with ulcer, though common.

The test meal nearly always shows hyperchlorhydria, but as this so often occurs in the absence of ulceration, it is not very helpful.

The X-ray diagnosis of duodenal ulcer is often conclusive enough, but requires unusual care and experience, and even so a negative finding does not exclude it. The decisive tokens of ulcer are persistent deformity of the duodenal cap together with hurried emptying of the stomach. Probably this hurry is merely due to the underlying hypertonic diathesis; the peristalsis is seen to be very active, and the meal may have passed entirely out of the stomach in an hour.

The deformity of the duodenal cap is due to spasm in the first part of the duodenum. Sometimes one can detect it with the screen, but the best method is to catch the duodenal cap full by screening, and then to take an instantaneous photo. It is necessary to take care that the shape of the cap is not merely due to incomplete filling.

In cases in which the cap cannot be got into view or no deformity is present there may be evidence of duodenal abnormality, in that the barium instead of taking the second and third parts of the duodenum at a rush, which is normal, passes through this region of the bowel with extreme slowness, and may dance up and down. This sign does not prove duodenal ulcer, but in my experience it is definitely pathological, and in the presence of marked symptoms warrants exploration. One may find duodenal ulcer, duodenal ileus, gastric ulcer, or adhesions to the gall-bladder.

Duodenal ileus.—This condition was elevated to the dignity of description as a pathological entity by Wilkie two or three years ago, and I think rightly. It is common and important. The second and third parts of the duodenum are greatly distended and may be almost as big as the stomach; the distension ends rather suddenly where the superior mesenteric vessels cross the duodenum. The symptoms are sufficiently definite to enable one to suspect its presence on the history, and it can be diagnosed conclusively by X-rays. My students have several times made the diagnosis correctly. The nature of the condition requires further study. It certainly seems that in some cases, at any rate, the pressure of the vessels does produce a real obstruction, and duodeno-jejunostomy is curative. I have had some very successful examples of this, followed up for a year or so, but the treatment is new, even in Wilkie's hands, and time must test its value. Sometimes the dilatation of the duodenum is part and parcel of a general visceroptosis and

intestinal stasis, though even here the drag of an over-distended and dropped cæcum will stretch the superior mesenteric artery across the duodenum. It may be, however, that duodenal ileus is merely a semi-paralytic condition due to loss of tonus.

The symptoms vary somewhat, but most commonly there is flatulence and nausea, both very persistent even for years, accompanied often but not always by vomiting and discomfort, which seldom amounts to pain. The relationship to food is apt to be vague. Thus it mimics the reflex dyspepsias. X-ray screening shows great delay in the passage of the meal through the second and third parts of the duodenum, associated with immense distension of the loop formed by them. Much of the meal may be hung up here even after the stomach and small intestines are empty.

Peri-duodenal adhesions.—This condition is found so frequently as the sole explanation of an inveterate dyspepsia that it ought for the sake of accuracy to be reckoned as a possible diagnosis. That the diagnosis is possible is shown by the fact that in my last case it had been correctly made by a physician, a radiographer, and a surgeon all working independently. The outstanding features were a long history, much pain late after a meal, vomiting followed by relief, freedom from pain when the stomach was empty, no hæmatemesis, and a big splashy stomach easily felt. The X-ray showed great delay in emptying (twelve to twenty-four hours) and persistent spasm of the duodenum. In some of my cases even a copious drink of water gave rise to the pain. The skiagram may show that the pylorus is pulled far over to the right, and there may be stasis in the second and third parts of the duodenum. Division of the adhesions cures the condition, thereby proving that it is a genuine cause of trouble.

Cancer of the stomach.—For the sake of completeness this is mentioned, but carcinoma was excluded from the series forming the basis of this study, and the topic is too complicated to discuss in detail, important as it is. We will merely point out that cancer of the stomach is common in men after forty-five, and ought always to be borne in mind when a man over that age develops an intractable dyspepsia.

The well-read practitioner will notice my indebtedness to the recent teachings of Sir Berkeley Moynihan, Carman and other members of the Mayo clinic, Hurst, Walton and Wilkie.

DISCUSSION.

The PRESIDENT appeared to think that a better title would have been " Diagnosis of *Surgical* Dyspepsia " ; only a small proportion of dyspepsia was amenable to surgery. A great proportion was due to worry. He viewed with distrust cases of dyspepsia due to kinks, veils and malpositions of viscera, but he agreed with Mr. Short as to the uncertain value of a test meal in gastric cancer and the importance to be attached to anorexia.

MR. C. A. MOORE asked what were the symptoms and pathology of duodenal ileus. He thought deformity of the duodenal " cap " rare. He related a case illustrative of the great difficulty of diagnosing gall-stone from duodenal ulcer. He agreed with Mr. Short that an atrophic appendix may be the cause of dyspepsia, and also that the dyspepsia may be accompanied by hæmatemesis.

DR. D. A. ALEXANDER spoke of the value of long-kept records in diagnosis of dyspepsia, and instanced cases of tuberculous adhesions in point.

MR. A. W. ADAMS agreed with Mr. Short's observation as to duodenal ileus. He found this condition in one case diagnosed chronic appendicitis. He suggested that this condition might be associated with those cases of acute

post-operative gastric dilatation, the mesenteric vessels by compressing the duodenum being responsible.

MR. SHORT, in reply, said that though duodenal ileus was difficult to diagnose before operation, in a typical case this was possible. He was glad others agreed that dyspepsia and hæmatemesis occurred as symptoms of appendicitis.

THE PRESENT POSITION OF SURGERY OF THE NERVOUS SYSTEM.[1]

BY

PERCY SARGENT, C.M.G., D.S.O., F.R.C.S.

THE developments of neurological surgery during recent years have been so rapid and so important that every practitioner ought to make himself acquainted with them, in order that he may form his own opinion as to their value and be able to offer to his patients such advantages as are to be derived from them.

Successful intervention in disease of the nervous system depends upon accurate diagnosis almost more than in any other region of the body. One may embark upon an abdominal operation with the intention of performing a gastroenterostomy, and end by removing a gall-stone; the failure to make a correct diagnosis beforehand, although regrettable, has done no harm. But with an intracranial

[1] A Paper read at a Meeting of the Bristol Medico-Chirurgical Society on Wednesday, February 11th, 1925.

operation the conditions are entirely different; an exploration of the frontal region when the tumour lies in the cerebellar fossa would not only fail to relieve the patient, but would inevitably leave him worse off than he was before. Recognising this, it seems to me that the surgeon must always lean heavily upon the support of the neurologist. Harvey Cushing, who occupies so prominent a position in the field of neurological surgery, has envisaged a superman so versed in all the clinical and laboratory knowledge of neurology that he can make his own diagnosis, and so skilled in the practical side of surgery that he can perform his own operations. I cannot think this to be anything but a Utopian dream, although we in this country have had in Victor Horsley one who must have come within measurable distance of such an ideal. But a Victor Horsley is born, not made.

It is manifestly impossible for me to do more than indicate briefly what Surgery has to offer in the treatment of some of the diseases of the central nervous system. I have selected four groups of cases which have so far yielded results which can scarcely be ignored even by the most conservative of physicians, namely pituitary tumours, cerebello-pontine tumours, meningeal endotheliomata, and spinal tumours.

1. *Pituitary Tumours.*

There are few things more striking in the whole range of modern physiology and medicine than the advances which in recent years have been made in the pathology of the ductless glands. For many years the thyroid was the only organ of internal secretion of which we had any real knowledge; now the subject of endocrinology has attained stupendous proportions; it is discussed in the public Press, novelists and playwrights make capital out of it, whilst

laymen converse freely of the testicle, politely termed monkey-gland, even at meal-times. Whether the pituitary will, like the thyroid, ever be successfully attacked on account of disordered function alone I cannot say. At present its surgical interest lies solely in the symptoms of pressure which are caused by enlargement of the gland or by tumours in its vicinity. The chief of these symptoms are failure of vision and intolerable headache for which relief can be obtained only by operative means, and as far as our present knowledge goes these are the only symptoms for which operation is justifiable.

The tumours which cause these symptoms fall into two main groups, those which arise within the gland and those which originate in its immediate neighbourhood. The former are almost entirely simple adenomatous tumours of the pars anterior ; they excavate the sella turcica so as to be easily recognisable by X-ray examination ; as they invade the cranial cavity, still encapsuled by a dural envelope, they push upwards the optic chiasma and stretch the optic nerves. Characteristic defects of the visual fields appear, and severe tension headaches occur. Generally speaking, the glandular symptoms in these cases are those of deficient secretion or hypopituitarism, namely hebetude, obesity, hairlessness, sexual impotence, increased sugar tolerance, low blood pressure and subnormal temperature. It is a matter of considerable importance to recognise the fact that such patients bear operations badly, and have a remarkably low resistance to microbic attack, so that the glandular symptoms have to be taken into account when an operation is contemplated.

In the second or suprapituitary group we usually find one of two kinds of tumour, the one a meningeal tumour in the interpeduncular space, and the other a tumour or cyst of complex histological structure, probably arising in the

infundibulum. These lie above the chiasma and compress it from above downwards (Fig. 1).

Pituitary tumours may be approached either (1) by a temporal operation with elevation of the frontal and temporal lobes, as was practised by Horsley more than twenty years ago; (2) from below through the sphenoidal sinus on the lines

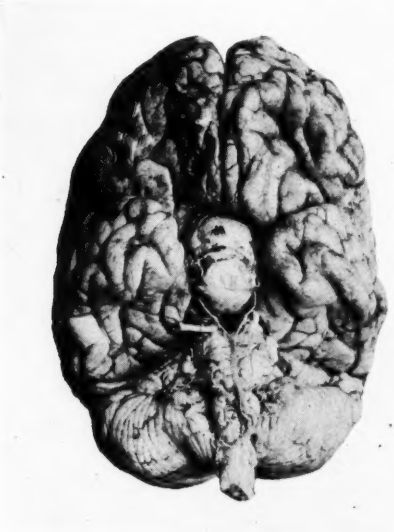
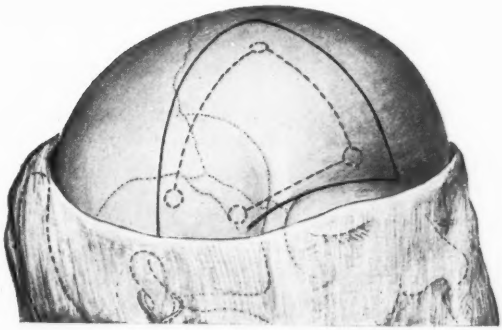


FIG. 1.
Suprapituitary cholesterin cyst.

advocated by Cushing; or (3) by turning down a frontal osteoplastic flap hinged in the temporal fossa, and elevating the frontal lobe, as was originally planned by Frazier (Figs. 2 and 3). The last is the method which I am now using, as giving the cleanest and freest exposure of the lesion, and as being applicable to the suprapituitary as well as to the intrapituitary tumour.

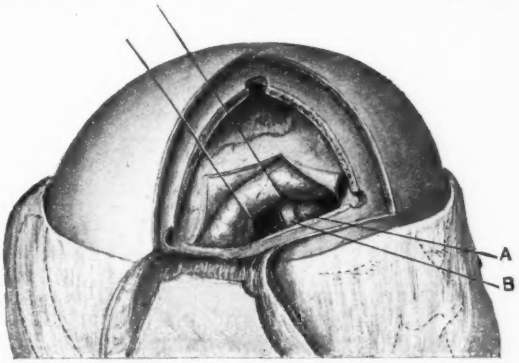


By courtesy of the Editor of The British Journal of Surgery.—Vol. XI. No. 43, 1924.

FIG. 2.

Outlines of osteoplastic flap for frontal approach (modified Frazier operation).

The best results are obtained with the adenomata. I have operated on 20 cases of this nature, 4 by the nasal route and 16 by the frontal, with 7 deaths altogether, and with very gratifying results in the remainder. This mortality of 35 per cent. is being reduced as practice eliminates operative accidents, and as increasing experience



By courtesy of the Editor of The British Journal of Surgery.—Vol. XI., No. 43, 1924.

FIG. 3.

Exposure of tumour by frontal osteoplastic approach. (a) Tumour, (b) Optic nerve and ophthalmic artery.

allows of the rejection of advanced and unsuitable cases. The last seven patients have made uninterrupted recoveries, with in most cases very striking improvement of vision. Although the mortality is still high, it may confidently be said that the operation of intracapsular removal of an adenomatous pituitary tumour is definitely established as a right and proper surgical procedure.

The suprapituitary tumours are less satisfactory to deal with. Lying as they do in the interpeduncular space in relation to the floor of the third ventricle, they are somewhat less easily accessible, whilst with those which are cystic and contain cholesterine there is the danger of death from what is apparently some form of toxæmia from liberation of their contents into the cerebro-spinal fluid. Amongst my cases there have been five instances of suprapituitary endothelioma and six of infundibular tumour. Seven of the eleven patients survived the operation, and in five of them a substantial degree of improvement was obtained.

2. *Cerebello-pontine or extra-Cerebellar Tumours.*

The next group to which I wish to draw your attention comprises the tumours which are found in the cerebello-pontine angle, and are termed lateral recess tumours or extra-cerebellar tumours. The majority of these are neuro-fibromata of the auditory nerve. Others are the curious "pearl tumours" or cholesteatomata, the origin of which is still uncertain.

The neuro-fibromata are usually firm, solid, encapsuled tumours, but are sometimes quite soft and even cystic. Occasionally they are bilateral and may be part of a diffuse neuro-fibromatosis. Arising just within the internal auditory meatus, they enlarge that orifice, sometimes to a remarkable extent, and on complete specimens of such tumours there can usually be seen a nipple-like projection

which has occupied the meatus. As Cushing has pointed out, the enlargement of the internal auditory meatus can sometimes be demonstrated by means of X-rays. This, however, is not a matter of any great importance, as these tumours give rise to such a definite train of symptoms that a precise diagnosis can readily be reached. For a long while, perhaps for many years, deafness and tinnitus may have been the only symptoms complained of, and sometimes the deafness is only discovered accidentally when it is already complete. By Bárány's tests the functional state of the vestibular nerve can be ascertained with precision, and these tests are positive at an early stage in the course of growth of an auditory nerve tumour. Very often the corneal reflex of the same side is diminished or absent, and this is so frequently the case that the corneal reflex as well as the vestibular functions should be tested in all cases of nerve deafness, as the coexistence of these signs would, even in the absence of all other symptoms, be sufficient reason for suggesting the presence of one of these tumours. Sooner or later the tumour, compressing laterally the pons and medulla, blocks the aqueduct of Sylvius, and ventricular distension results. Then appear the classical symptoms of cerebral tumour, the headache, vomiting and papilloedema. When the stage of general increase of intracranial pressure is reached operation becomes at once more difficult and more dangerous, and the outlook more grave.

It might be supposed that an innocent encapsuled tumour, easily diagnosed at an early stage, and surgically accessible without any great difficulty, could be removed completely and safely. This, however, is in my experience unfortunately not the case. It is true that these tumours can be shelled out with ease, but in doing so the medulla, probably through its blood supply, is so damaged that the common result is death from respiratory failure. I have not

removed one of these tumours completely since 1921. Up to that time I had so operated upon nine patients, of whom eight died, whilst the only survivor made a complete and excellent recovery and remains well five years later. There is, however, another way of dealing with these tumours, which gives very satisfactory results, and which I have practised for some years, namely the removal of the growth piecemeal from within its capsule. The tumour having been exposed, the capsule is incised, the mass is gradually broken up with a curette, and the fragments are removed by means of a suction apparatus. I have now done 19 such operations with 3 deaths, a mortality of 16 per cent., which is in striking contrast with the 88 per cent. mortality of the operation by total removal.

A further series of 12 cases have been treated by decompression alone, and although one of the patients lived for eighteen years in complete comfort, and then died of an independent malady, these patients have not, generally speaking, been benefited to anything like the same extent as those treated by partial removal, whilst the mortality of the decompression operation was 40 per cent. as compared with the 15 per cent. of intracapsular or partial removal. This difference may be accounted for partly by the fact that most of the cases for which only decompression was done were amongst my earlier operations, and partly because in many of them the intracranial pressure was so far advanced that the tumour could not be exposed.

In these extra-cerebellar cases, then, we have another definite group of intracranial tumours for which surgery offers an increasingly bright outlook. The results can only be improved by earlier diagnosis, which will enable the tumour to be attacked whilst it is still small, and before the intracranial pressure has been raised, before, in fact, the classical symptoms of intracranial tumour have appeared.

3. *Meningeal Tumours.*

The third group, consisting of the endotheliomata, is histological rather than regional. It is regional only in the sense that the tumours are meningeal, and therefore for the most part superficial and more or less easily accessible. They are solid, encapsulated masses which cup but do not infiltrate the brain; they probably arise in the arachnoid tufts which constitute the Pacchionian bodies, and therefore are most commonly found in the neighbourhood of the longitudinal sinus. So slowly do they grow that they may attain very large proportions before giving rise to any symptoms of increased intracranial pressure. The largest which I have yet seen (6½ ounces) was removed from the brain of a patient who had never had a headache and whose optic discs were normal.

I have now operated upon 41 cases of meningeal endothelioma, in 30 of which complete removal was carried out, whilst in 4 only partial removal was possible. In the remaining 7 the tumour was not found, five times on account of incorrect localisation, and twice because the patients died after a "first stage operation." In order to give you as clearly as possible a general impression of the results obtained from these operations I have classed them as follows:—

1. *Recovered completely*, by which I mean that the patients were restored to their normal lives and occupations without any neurological defect. These number 9, approximately 22 per cent.
2. *Recovered*, but remained neurologically imperfect (various palsies, fits and so on). These number 16, approximately 38 per cent.
3. *Died* within 12 months 7, approximately 17 per cent.
4. Post-operative deaths 9, approximately 21 per cent.

Of those patients still alive and well two were operated upon 16 years ago, three 10 years ago, and the rest between 3 and 6 years ago. The longest survival after decompression alone was 16 months.

As these meningeal tumours can often be diagnosed and localised with reasonable certainty, and before signs of increased intracranial pressure appear, they can be removed through an osteoplastic opening. This is a great advantage, as it avoids the very considerable inconvenience of a large cranial defect. Seven of the above-mentioned patients who recovered were operated upon in that manner and consequently have no cranial defect.

Unfortunately, such tumours form only a small proportion of the whole, for of 200 tumours of the forebrain (frontal, temporal, occipital, and parietal) upon which I have operated, no fewer than 160 (80 per cent.) were of an infiltrating or malignant character, the great majority being gliomata. The cerebellar tumours, of which there are 60 instances in my series, are almost exclusively gliomata or gliomatous cysts. It must not be supposed, however, that all these cases of glioma are hopeless and that nothing can be done for them. On the contrary, the results of decompression and of partial removal compare very favourably with the results of many merely palliative operations elsewhere, as for example colostomy for cancer of the colon. Lately we have been burying radium (50 or 100 milligrams for 24 hours) in gliomata with surprising results. The gliomata appear, so far as our observations at present go, to be peculiarly vulnerable to radium.

In operations for tumour of the brain the most important factor upon which hinges success or failure is the degree of intracranial pressure. In the presence of a high degree of pressure the simplest tumour removal is a formidable and dangerous task. In many cases, of course, it is impossible

to make a diagnosis of tumour until papillœdema appears, but that and the other signs of increased intracranial pressure should not be allowed to advance far before operation is undertaken. The classical symptoms of cerebral tumour should be regarded rather as danger signals, or, if far advanced, as signs of impending death. We no longer wait for signs of general peritonitis before operating for appendicitis; neither should we postpone operation for cerebral tumour until headache, vomiting and papillœdema are present. We must look for better results not only to the surgeon from improvements of technique, but also and chiefly to the physician from earlier and more accurate diagnosis, as well as in a greater readiness to procure for his patient the only treatment which offers any hope. We are not looking to him in vain. I have had the privilege of working with many physicians, and I have been greatly impressed with the enormous improvement in accuracy of localisation which has been evident during the past few years.

It may be that we shall be able to derive some additional assistance in the future by radiological methods, and on this point I should like to make a few observations.

Ventriculography has now had a fair trial at the hands of several workers, notably Jefferson of Manchester. The procedure is to inject air into the lateral ventricle of the brain, and to take radiograms with the head in various positions so as to ascertain whether one or other ventricle is obliterated, dilated, or otherwise deformed. It has been claimed that tumours, unlocalisable by other means, can be located, and doubtless in some obscure cases this method does afford assistance. As, however, the percentage of cases in which neurological examination fails to localise a tumour is very small, and as the operation is by no means free from danger, its sphere of usefulness is necessarily

limited. It has not anything like the same value for the brain as Sicard's radiographic method has for the spine.

4. *Spinal Tumours.*

The fourth group of cases, namely that of spinal tumours, provides some of the most gratifying of all the results of operation upon the central nervous system.

FIG. 4.
Typical spinal tumour.

In looking through, as I did recently, many volumes of the *Transactions* of this Society, I was most interested to find in the very first number (1883) the report of a case of Spinal Tumour by Dr. Long Fox, illustrated by an excellent full-page drawing. It is labelled "sarcoma," but it is

doubtless what we to-day know as an endothelioma. The drawing differs in no essential respect from the typical picture which I show here (Fig. 4).

Amongst the large number of cases in which I have operated for compression paraplegia there have been 72 instances of spinal tumour. These are grouped as follows :—

Intrathecal extramedullary		35
Benign	29	
Malignant	6	
Intramedullary		16
Extrathecal		10
Benign	5	
Malignant	5	
Malignant disease of the bone ..		11
		72

Thus of the whole number 29, or more than 40 per cent., were benign extramedullary growths capable of complete removal, and in everyone there must have been some period in which a diagnosis could have been made and operation carried out whilst the cord was still capable of complete and permanent recovery. Such operations are attended with very little risk.

These tumours are capable of diagnosis at an early stage by neurological signs, by the condition of the cerebro-spinal fluid, and by radiography, and there is no excuse for allowing a patient to become totally paralysed and finally to succumb when operation offers the opportunity of a complete and permanent cure. The radiographic method of diagnosis, originated by Sicard of Paris, depends upon the arrest, at the point of blockage, in the spinal canal, of a substance opaque to the X-rays. Such a substance is

lipiodol, a heavy inert oil containing iodine, and it is remarkably opaque to the X-rays, more so, in fact, than bone. When it is desired to ascertain the presence or absence, or the level, of a block in the spinal canal, a cubic centimetre of this lipiodol is injected into the cisterna magna through a sub-occipital puncture, the patient being in a sitting position, and radiograms of the spine are taken. If no

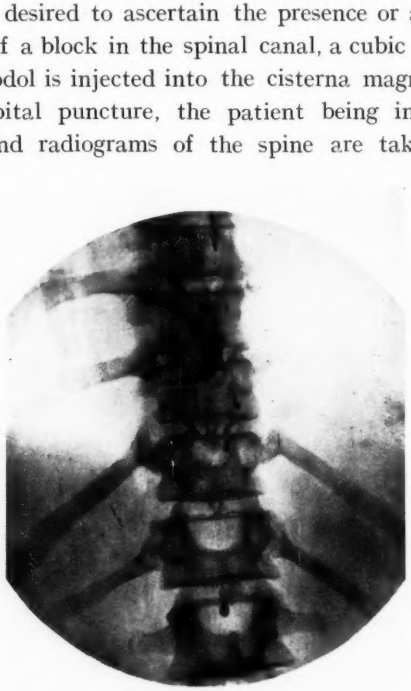


FIG. 5.
Lipiodol arrested at upper limit of tumour.

obstruction exists the lipiodol falls rapidly to the bottom of the theca, and appears opposite the second sacral vertebra as a rounded or conical shadow. If, however, a tumour, abscess, or other block is present, then the lipiodol is shown arrested at the upper level of the obstruction (Fig. 5). This method affords a valuable means of diagnosis in cases of spinal tumour, for it not only shows the presence of a block in the spinal cord, but also demonstrates the exact level of

the obstruction with relation to the bones, and enables the surgeon to plan his laminectomy with the greatest accuracy (Fig. 6). It is only the upper level, however, which is thus demonstrated. If it is desired to show the lower level of the tumour, or in other words to estimate its longitudinal extent, a thing which neurological examination does not enable us to do, then the lipiodol injection is made by

FIG. 6.
Spinal tumour shown in Fig. 5, after removal.

lumbar puncture, and the radiograms taken with the patient in the head down position.

As we become more familiar with the interpretation of lipiodol-radiograms, we shall doubtless be able to derive information regarding other spinal lesions such as chronic meningitis and meningitis circumscripta. It has already proved of great value in traumatic cases when the question of laminectomy has to be decided.

A CASE OF

INTRATHECAL EXTRAMEDULLARY SPINAL TUMOUR—

CONFIRMATORY LOCALISATION BY LIPIODOL.[1] RELIEF BY OPERATION.

BY

A. WILFRID ADAMS, M.S., F.R.C.S.,

Assistant Surgeon, Bristol Royal Infirmary.

THE interest of this case is twofold.

Firstly, it demonstrates the use of the intrathecal injection of lipiodol as a precise means of localising compression of the spinal cord, and what becomes of the solution.

Secondly, only one other spinal tumour is recorded in the index of surgical cases in the Bristol Royal Infirmary for the past fifteen years.

H.W., aged 64 years, first suffered with varicose veins of the legs twenty months previously, and three months later pain and stiffness started in the knees, especially in the right leg, which began to drag on walking. There were also pains around the lower abdomen. Examination revealed nothing beyond spasticity of the legs. He had noticed the legs draw up involuntarily when lying in bed.

About four months before the operation Dr. Philip T. Jones wrote saying that the patient's condition was deteriorating rather rapidly ; large trophic sores had developed over the sacrum, left trochanter and heels ; œdema of the legs and lower part of the back appeared, and sphincteric control was lost.

February, 1925. — Examination preceding operation: Condition of organs generally healthy, although he had been unable to stand for fourteen months.

[1] A heavy inert solution of iodine (40 per cent.) in vegetable oil, which is opaque to the X-rays.

The nervous system showed a perfect picture of complete anæsthesia and spastic paraplegia from the toes to the level of the epigastrium. A striking feature was the mass response of the leg muscles on a slight stimulus, such as eliciting Babinski's sign, when both limbs were flexed up at ankle, knee and hip.

Diagnosis.—The cause of the symptoms did not appear to be due to primary chronic disease of the cord. Disseminated sclerosis was excluded by age of onset, amyotrophic lateral sclerosis by absence of atrophy in the muscles of the hand, and there was no reason to suspect a combined degeneration of the cord of toxic origin. There was no evidence of injury or disease of the vertebral column which might be compressing the cord, and the radiogram was normal. Wassermann's reaction was negative.

The conclusion was that a tumour within the vertebral canal was the cause of pressure on the cord about at the level of its eighth dorsal segment, and this was confirmed by :—

(*a*) Cerebrospinal fluid withdrawn from the cisterna magna being clear and colourless, while Dr. A. D. Fraser reported that what was drawn from the lumbar region showed " cells 8 per cm. (mononuclear), albumen 0.3 per cent., glucose 0.03 per cent. Fluid is yellow, and a network has formed (Froin's syndrome positive)."

(*b*) Injection of lipiodol and radiography.

On June 2nd, with the patient supported in the sitting position, under local anæsthesia, a lumbar puncture needle was inserted about one inch below the inion and guided along the occipital bone to the foramen magnum. Drops of cerebro-spinal fluid appeared, and 1 cc. of lipiodol was injected. (The injection troubled the patient even less than the lumbar puncture.) Skiagraphy showed the descent of the fluid in the theca was arrested completely at the level of the sixth dorsal vertebra, and continued to be arrested there

ninety-six hours later! (Fig. 1.) The inference from this was that the fluid had settled on the upper limit of the tumour where this was compressing the cord and blocking the subarachnoid space. With this visible evidence to confirm the clinical data the diagnosis was made of intrathecal spinal tumour at the level of the eighth–ninth dorsal segments,

FIG. 1.

Before removal of tumour showing lipiodol arrested at level of 6th dorsal vertebra.

FIG. 2.

After removal, showing lipiodol at level of 5th lumbar vertebra.

and as such the patient was shown before the meeting of the Society on February 11th.

Operation.—February 17th. Removal of the tumour.

The dura was exposed by raising the laminæ from the fifth to ninth dorsal vertebræ. No abnormality was visible. but at about the middle of the length of exposed theca an area of increased firmness was felt, and corresponded to the site suggested by the lipiodol shadow, and then incision of

the dura and arachnoid over the suspicious region brought the tumour into view, about one inch in length, purplish in colour and slightly adherent. It came out in two fragments as shown in Fig. 3, proving the accuracy of lipiodol as a localiser in obstruction of the spinal theca. Dr. A. D. Fraser kindly reported on the microscopic appearance as "soft psammoma" (Fig. 4). The well-marked bed in the

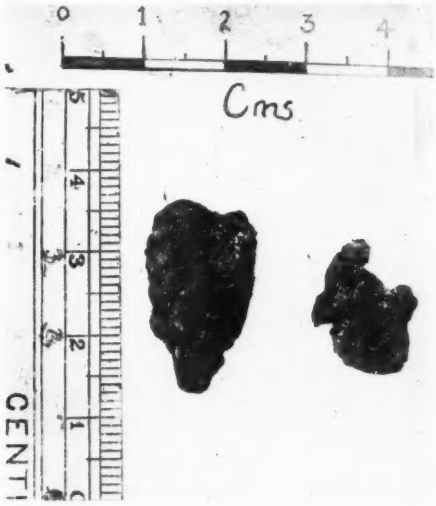


FIG. 3.
Tumour in two portions, natural size.

cord formerly occupied by the tumour appeared to fill out but little. The dura was closed carefully and muscles brought together over it. Primary union occurred in the wound.

Subsequent course.—The stiffness of the limbs is much reduced. Voluntary movements are present, though still weak. With assistance he first stood for a minute on the tenth week. The sacral sore is improved but troublesome

still, while the others are healed or nearly so; œdema has gone from the legs and they are warmer, and sphincter control has returned in the bladder. There is some slight return of sensation, and pain has been felt in the sore on the left hip.

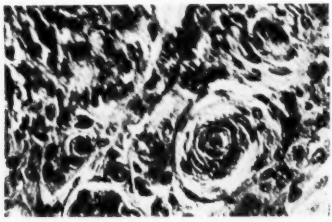


FIG. 4.
Microscopic section of tumour showing psammoma formation.

Prognosis.—The extent of his ultimate recovery is difficult to foretell. It is now three months since operation, and he is still slowly improving.

What becomes of the lipiodol was shown in an interesting way by the radiogram taken three months after operation (Fig. 2). Since the removal of the obstructing tumour it had trickled down to the level of the fifth lumbar vertebra. Very little absorption seems to have occurred, which points to the inert nature of the injected lipiodol.

SOME POINTS IN THE DIFFERENTIAL DIAGNOSIS OF FOCAL INFECTION IN THE NASAL SINUSES CAUSING OCULAR AND OTHER SYSTEMIC INFECTIONS.[1]

BY

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THE purport of these notes is not to survey the question of nasal infections as the causal factor in various systemic affections, nor even to discuss the manifold symptoms attributable to such focal infection, but to explain briefly some developments in technique for locating precisely, or positively excluding, the existence of a nasal source of infection in cases where the consequences of focal infection render it a matter of considerable importance to obtain reliable diagnostic findings, *e.g.* canalicular optic neuritis and other peripheral neuritis, rheumatoid arthritis, neurasthenia, mental depression and even insanity.

The existence of frontal sinusitis in doubtful cases may usually be diagnosed by means of good skiagrams and further corroborated by passing a fine cannula into the sinus and blowing air so as to cause any secretion from the sinus to appear at the lower end of the fronto-nasal duct.

In antral sinus infection transillumination is so unreliable as to be useless and often misleading and, though skiagraphy is often valuable, the less marked examples can only be determined with precision by entering the sinus with a

[1] A Paper read at a Meeting of the Bristol Medico-Chirurgical Society, on Wednesday, April 8th, 1925.

cannula and sucking the contained secretion into a sterile syringe for examination.

It is, however, in determining and exactly localising the focus of infection when present in the sphenoidal sinuses or posterior ethmoidal cells that the suction syringe has proved most helpful. Investigations in the post-mortem room which I carried out in 1896 with the co-operation of Mr. S. V. Stock led me to introduce a method of puncturing the anterior wall of the sphenoidal sinus and sucking any contained discharge back into the attached sterile syringe, instead of syringing out the sinus by the natural opening. Subsequently I applied the same method to the posterior ethmoidal cells, and thus with the suction syringe one can determine the presence or absence of active infective processes in either the maxillary antrum, sphenoidal sinuses and anterior or posterior ethmoidal cells on either side.

Let us take for example a patient threatened with loss of vision from canalicular neuritis, suspected as nasal in origin. Having explored various sinuses and found them sterile, it is necessary to make certain that no infected sinus has been "missed," because the failure to locate exactly the infected focus may cost the patient his eyesight, if nothing worse. Further, if some of the sinuses have been proved infected, it does not follow that they are the chief or sole source or even the source at all of a canalicular neuritis, unless one can be certain that the other sinuses which might cause the neuritis have been explored and proved sterile.

Diagnostic exploration by the suction syringe can be done under local anæsthesia by cocaine, tutocain or eucaine, etc., in all but children or highly nervous adults for whom a light general anæsthetic is desirable.

For each sinus explored one should use a separate sterile syringe and cannula. After entering a sinus a little sterile warm water may be injected to mix with any discharge lying

in the cavity, and then sucked back into the syringe, yielding, so to speak, a "deep-sea fishing" sample of the sinus contents. After detaching the cannula, the contents of the syringe is emptied into a sterile bottle for examination by stained film and culture.

The maxillary antrum may be entered either through the thin bone of the upper part of the inferior meatal wall

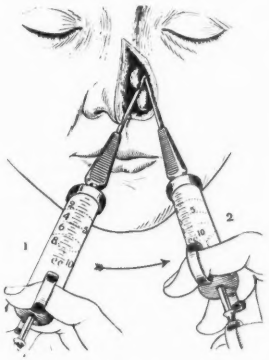

FIG. 1.

Diagram with left nasal passage exposed to show exploration of left antrum through the middle meatus. (1) First position, the curved end of cannula placed in the middle meatus. (2) Second position prior to passing cannula down and outwards into the antrum on raising the hand and syringe upwards.

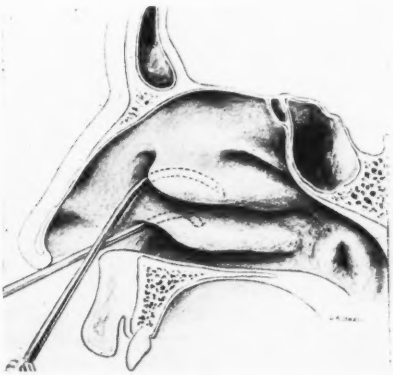

FIG. 2.

Showing above the cannula passed into the maxillary antrum through the middle meatus, and below the same with the short cannula through the thin inferior antro-meatal wall.

or through the far thinner wall of the middle meatus (as shown in the diagram), and to anyone accustomed to the latter route it is a very simple and painless method.

The sphenoidal sinus is entered by passing the blunt trocar and cannula through the thin anterior wall, care being taken to avoid using any force. The sensation of resistance overcome indicates the entry of the top of the cannula into the sinus, and it is passed until it impinges against the

posterior wall of the sinus; the sensation of contact with a bony wall being characteristic and hardly mistakable. Having thus entered the sphenoidal sinus cavity, the blunt trocar is withdrawn and the syringe attached to the proximal or projecting end and the sample of the investigated sinus content sucked into the syringe. If much pus is lying in the

FIG. 3.

Transverse horizontal section of the head showing the floor of the intracranial anterior fossa. Posteriorly the optic chiasma divides, and the right optic nerve is displayed passing forwards to the right eye and skirting the small right sphenoidal sinus and posterior ethmoidal cell. Exploring cannulæ here shown entering the right and left nasal passage, but their distal extremities are seen lying side by side in the large exposed left sphenoidal sinus.

sinus, it may appear in the syringe in ropes, or as very bloody mucus, leaving one in no doubt as to the sinus being infected. In other cases the fluid extracted may be perfectly clear and watery, proving sterile on culture. Other samples obtained may be suspicious only, and doubtful until submitted to film and culture examinations, which may either prove negative

or definite phagocytosis, abundance of polymorphonuclears and pyogenic cocci may afford conclusive evidence of active infection.

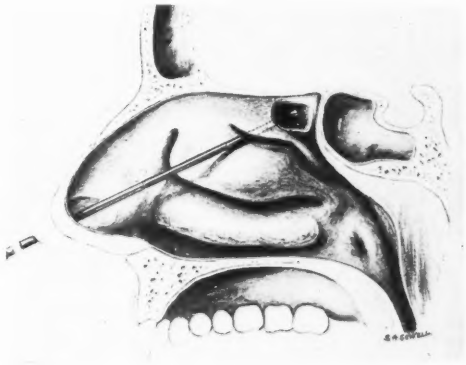

FIG. 4.

Showing the exploratory cannula passed into the right posterior ethmoidal cell through the superior meatus.—(P.W.W.)

The posterior ethmoidal cells are similarly explored by the blunt trocar and cannula entered either above and internal to the middle turbinated body, or, as I usually find much simpler, by piercing the posterior ethmoidal cell walls beneath the attachment of the middle turbinal body to the outer wall of the nasal passage.

Having thus explored the maxillary antrum, ethmoidal cells and sphenoidal sinuses through the right and left nasal passages, one has obtained at least six samples for investigation by the pathologist, which if the anatomical arrangement of the sinuses be normal should yield exact and reliable information as to the normal or infected condition of each sinus.

Unfortunately, the sphenoidal sinuses and ethmoidal cells are often most irregularly developed. For instance,

one sphenoidal sinus may be very large and extend right across the mid-line, pushing the sinus of the other side, which is correspondingly small, so far outwards that the exploring cannulæ passed backwards through the right and left nasal passages have to be entered through the one large sinus, the other small one being missed (*vide* Fig. 3). This is not difficult to discover if, with both cannulæ in the sphenoidal sinus or

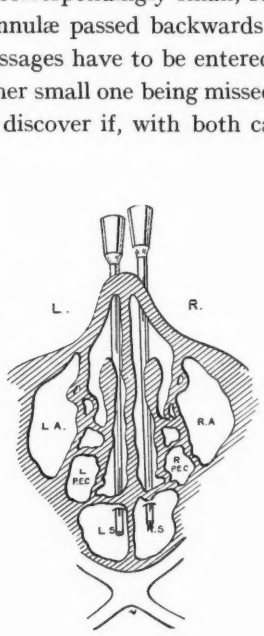

FIG. 5.
Diagram showing the cannulæ passed through the R. and L. nasal passages and lying in the corresponding sphenoidal sinuses.

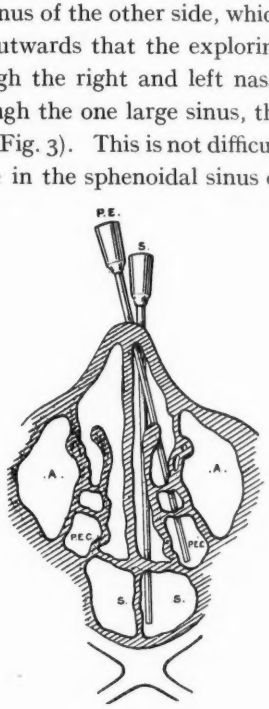

FIG. 6.
One cannula has entered the R. sphenoidal sinus, the other has been passed into the R. posterior ethmoid cell.

sinuses, one injects fluid down one, for if both cannulæ be in one and the same cavity the fluid will rise up the other and escape by the open end, whereas if the two cannulæ are in separate sinuses the fluid injected down one cannula cannot escape by the other. Similarly a posterior ethmoidal cell may be so large and extend backwards so deeply that it encroaches on the corresponding sphenoidal sinus, and then one may be

left in doubt as to whether one has entered the sphenoidal sinus instead of the ethmoidal cell. By again keeping both cannulæ *in situ* and injecting water down one it is quite easy to determine whether the two cannulæ lie in the same or in separate cavities. Such precautions are by no means fanciful, and I have met with cases of canalicular optic neuritis where the sinus infection did not correspond with the retinal defects until further careful exploration revealed such irregularities as I have described, and which had very nearly led to the source of the very serious ocular defect being missed and the patient unrelieved.

Reviews of Books.

Orations and Addresses. By Sir John Bland-Sutton. Pp. 160. London: William Heinemann. 1924. 57 Illustrations. Price 10s. 6d. net.—We have read with great pleasure and interest this volume, comprising a dozen addresses given on various subjects by this distinguished writer—from that on Cranial Morphology (*Journal of Anatomy and Physiology*, 1887–88, xii. 28) to the Habits (Ecology) of Tumours, delivered before the Cambridge Medical Society in 1923. The Hunterian Oration and the chapters on Choroid Plexuses and Psammomas, Pacchionian Tumours and Cranial Exostoses, as well as the description of the War Pathological Collection of the Royal College of Surgeons are particularly noteworthy. The researches of W. G. Penfield on the origin of cranial exostoses (1921) are included: Pacchionian villi erode the dura mater and cranium and cause a complete rearrangement of the osseous structure. The bone-forming elements lay down bone in the substance of the neoplasm. The pathological originality of the author, his versatility and lucidity, are apparent on every page; the woodcuts are numerous and there is an ample index.

Leprosy. By Sir Leonard Rogers, C.I.E., M.D., F.R.C.P., F.R.C.S., F.R.S., I.M.S. (retired) and Ernest Muir, M.D.,

F.R.C.S. Edin. Pp. xii., 301. Bristol: J. Wright & Sons Ltd. 1925. Price 12s. 6d.—For many years the problems of this fell disease have puzzled medical science and a large part of them yet remain unsolved. Fifty years ago the discovery of the bacillus lepræ by Hansen was a great step forward. This led to great alteration in ideas with regard to the epidemiology and etiology of the complaint, and the old theory of heredity had to give place to the now accepted one of infection. However, knowledge has not been advanced as much as was expected; it has proved impossible to grow the bacillus lepræ outside the body, and although some workers have claimed to have done so, closer investigation has shown that they were not working with a true strain or some other fallacy has been found in their work. The period of incubation is still doubtful, for few if any cases on record allow of a definite period being affixed, the length of time from possible infection to first manifestation being variously reported from six months to ten years, the length of the period being apparently affected by many factors such as climate, conditions the patient is living under, his state of health, if subject to other diseases, etc., etc. Again, the nature of the primary manifestations is not clearly established; they generally escape the notice of patients, who frequently do not come under notice until the disease is well established.
the treatment of the disease many and various drugs and methods have been employed with little or no curative effect, until late years, when modern methods, in which the authors of this book have played a large part, have proved "effective in clearing up the symptoms and infectivity of most early and some more advanced cases." In view of this advance in treatment the authors consider that a review of our knowledge and the facts in our possession concerning leprosy and a reconsideration of the whole case is necessary. For this purpose in their book they summarise the most important previous literature having a practical bearing on the subject, and give a clinical account of leprosy based on a large personal experience. The history of the disease is full, and gives the story of its spread and subsequent decline in Western Europe and also tells of its spread to the Western Hemisphere. The distribution, communicability and etiology are duly and fully dealt with. Prophylaxis receives its due meed of attention and many practical points are discussed, their value demonstrated and made clear. This part of the book should prove of considerable value to those in administrative positions. The clinical description of the disease is based on the authors' own large personal experience and is therefore the more valuable. They divide the types of disease into three classes, viz. skin, nerve and mixed, considering that confusion has been caused

by the usual classification of nodular or tubercular and maculo-anæsthetic types. They divide the individual lesions in a similar way, defining a skin lesion as a skin area in which lepræ bacilli can be found on bacteriological examination, but in which there is no anæsthesia to light touch; and a nerve lesion as one indicated by an area of skin in which bacilli cannot be found on bacteriological examination but in which there is anæsthesia to light touch. All their descriptions are based on this "clear-cut description." The clinical picture is clearly depicted, and the points emphasised in the letterpress are made more clear by good illustrations taken from the authors' own cases. Diagnosis, based on the points dealt with in the clinical description, is given full consideration and should help in the early diagnosis of cases, a point so important when dealing with this disease, which is duly accentuated in the book. A historical review of past treatment is given, and this leads up to the present-day one used and advocated by the authors—esters of chaulmoogra, hydnocarpus and other oils. The procedure is fully explained, the method of the preparation of the esters, the method of their injection and dosage, the effects on the patient, reaction, etc., etc., are all in turn discussed. The selection of suitable cases also is fully dealt with and the views of the authors made clear. As well as special treatment the importance of general treatment is impressed on the reader, and many points emphasised, such as the necessity of the removal of the exciting and predisposing causes. The book is a most readable one, full of good matter; the personal element so marked throughout, especially in the sections on prophylaxis and treatment, makes it all the more valuable and enjoyable. In conclusion, we are sure the desire expressed by the authors that it may prove of service to workers in affected countries will be fully realised.

The Bacteriology of Food. By CLEMENT DUKES, M.D., M.Sc., D.P.H. Pp. vii., 180. London: H. K. Lewis & Co. 1925. Price 7s. 6d. net.—Provides a fairly complete account of the bacteriology of most of the common foods and of water. In addition to a brief discussion on food preservation includes water, milk, the various condensed and dried milks, butter, cheese, canned foods, alcoholic beverages, bread, vinegar and an account of bacterial food poisoning. While written primarily to meet the needs of science students studying bacteriology as one of the final subjects in the B.Sc. degree of London University, it will be found of general interest to medical men and students. Although not a laboratory text-book, it covers fairly well the laboratory methods in vogue for the examination of the foods indicated. An account of the bacteriology of

shellfish might well have been included. The largest section deals with milk, and supplies a clear account of this subject, which is well up to date. Some omissions may be mentioned. Bovine mastitis as a source of infection in human sore throat outbreaks is mentioned, but its importance is underrated, while no mention is made of the fact that in a number of instances Gærtner group bacilli have been isolated from the milk of individual cows which have been responsible for food poisoning outbreaks. *B. melitensis* in relation to its spread by milk is not mentioned nor is its relationship to *B. abortus*. The account of the different types of tubercle bacilli is very short. It is difficult, however, to include even in forty-six pages a comprehensive account of the bacteriology of such a very complex fluid, and on the whole the author is to be congratulated upon his success. A welcome section deals with the bacteriology of canned foods, as these have hitherto been for the most part neglected in general text-books upon food or only treated from the chemical aspect. In general the author has succeeded well in his object, and readers will find an attractively written book giving a great deal of useful information. Some of it, such as the parts played by bacteria in the production of butter, cheese, vinegar, etc., is not readily available in English text-books. Several pages are also devoted to the subject of fermented milk, the bacterial nature of the effervescent types, such as *Kefir* and *Koumiss*, as well as the non-effervescent type as exemplified by *Yogurt* being explained. The author characterises the soured and fermented milk treatments as a craze, and does not advance any bacteriological data favouring the practice as of real therapeutic utility.

An Introduction to Dermatology. By SIR NORMAN WALKER. Eighth Edition. With 92 Plates and 80 Illustrations in the text. Pp. xviii., 373. Edinburgh: W. Green & Son Ltd. 1925. Price 20s. net.—For many years we have recommended Norman Walker's *Introduction to Dermatology* as the best handbook for students and general practitioners. The eighth edition has been largely re-written, and by the omission of some of the rarer skin diseases more adequate accounts can be given of the common conditions. The illustrations are still being added to, and their excellence seems to increase with each edition. The term " Autophytica " for " self-inflicted " has nothing to commend it ; and we disagree entirely with the author's excuse for the Scots word " Kenspeckle " that there is no English word for it. We suggest that in the next edition the word " conspicuous " might be employed as the earlier form of the Lowland Scots corruption. These are the only faults to be found with a book of outstanding merit.

Chronic Intestinal Stasis. By ALFRED C. JORDAN. Pp. xi., 230. London: Henry Frowde, Hodder and Stoughton. 1923. Price 25s.—There is a tremendous amount of work and information in this book. The author is to be congratulated on his investigations of intestinal conditions, and though all will not agree with his deductions, it is a book of the utmost value.

A Manual of Practical X-ray Work. By JOHN MUIR. B.Sc., M.B., Ch.B., B.Sc. Pp. x., 524. London: William Heinemann. 1924. Price 31s. 6d.—A very excellent treatise on X-rays in general. The latter half of the book, dealing with diagnosis and reading of X-ray films, is particularly lucid and helpful. Should be carefully read by those interested in this branch of medicine.

Epidemic Encephalitis. By ARTHUR J. HALL, M.A., M.D., F.R.C.P. Pp. xii., 229. Bristol: John Wright & Sons Ltd. 1924. Price 12s.—This is a comprehensive study of our present knowledge of Encephalitis, a disease which is proving itself a serious problem to all students both of medicine and sociology. Although not a new disease, it has never within recent times shown such a wide incidence or such serious effects. In view of the latter factor the recognition of the frequent occurrence of slight cases and the precautions against carriers of naso-pharyngeal infection are all important. The low grade but definite contagiousness of the disease must be remembered not only at the time of the original attack, but also during the progress of the residua and recrudescences. A full description of the pathology and characteristics of the virus is given and the symptomatology is adequately dealt with. In the discussion of residua the mental changes are given prominence, but in view of their tremendous social import it is doubtful if the matter is even here sufficiently stressed. The short section on treatment only serves to indicate how barren are our resources in face of this menace. Finally there is a complete bibliography up to the date of publication of seventy-four pages, in addition to the references at the end of each chapter.

Acute Infectious Diseases. A Handbook for Practitioners and Students. By J. D. ROLLESTON, M.A., M.D. (Oxon.). Pp. vii., 376. London: William Heinemann (Medical Books) Ltd. 1925. Price 12s. 6d.—This is a very valuable addition to our text books, dealing with the commoner infectious diseases. The writer's wide experience has made it possible for him to speak with authority upon many contentious points, and every chapter is full of interest and information. The pages devoted to treat-

ment will be especially appreciated by practitioners, for the directions given are always clear, brief, and practical. Space is also devoted to a description of some of the less common infectious diseases—Paratyphoid Fever, Vincent's Angina, the Fourth Disease, and Erythema Infectiosum. It is interesting to note that the author regards cases of Fourth Disease as probably examples of mild scarlet fever or rubella.

A Contribution to the Study of Pernicious Anæmia and Aplastic Anæmia. By ARTHUR SHEARD, M.D. Pp. vii., 94. Bristol: John Wright & Sons Ltd. 1924. Price 7s. net.—In this book—a reprinted M.D. thesis—Dr. Sheard offers a lucid account of modern views on pernicious anæmia. He conforms to the belief in achlorhydria as an essential preliminary, the disease being actually excited by some infection generated within the gastro-intestinal tract. A case of aplastic anæmia is also described fully and reviewed. Dr. Sheard thinks the two diseases essentially different; the one is an excessive hæmolysis due to certain constant morbid processes, while the other is a failure of hæmopoiesis due to various causes. There are some interesting appendices, one of them summarising what is known as to the familial factor in prenicious anæmia. No one interested in diseases of the blood should neglect to read this little monograph.

Tuberculosis: Its Prevention and Treatment. By JOHN LAIRD, L.R.C.P. and S.I. Second Edition. Pp. 130. Bristol: John Wright & Sons Ltd. Price 5s. 6d.—Dr. Laird has written a book that has the merit of being both short and readable. His thesis is the curability of tuberculosis by simple home treatment. There is no practitioner, whether special or general, who will not gain something from making the acquaintance of these few pages.

The Practical Medicine Series. Volume I.: General Medicine. Series 1924. Chicago: The Year Book Publishers. Pp. 735. Price $3.—This is an American publication after the style of the *Medical Annual*. Though the American work occupies a relatively large fraction, that of other countries is included. The whole of medicine is reviewed, but in an unbalanced manner. There is little reference to nervous diseases, but the intention may be to treat this in another volume. There are many minor points which will annoy the reader, especially those of this country; the comments of the editors are in the vernacular, and though amusing and very much to the point, they appear out of place in a scientific work. Misprints are rather numerous. Paragraphs on the same subjects are not always consecutive,

and repetitions are frequent at longer or shorter intervals. Very short notices or complete omissions of important foreign work are to be regretted; thus, Caronia's work on Scarlatina had more in its favour than that of the Americans' Dick, but it is accorded a very brief mention. Much work on the etiology of Addison's anæmia by Seyderhelm and others is not noted. In spite of these defects the book is of interest and value. The sections on diseases of the ductless glands and that on circulatory diseases are particularly good, not so much for the notices they contain, but for the amusing and sound comments appended by the reviewers; those of Preble in particular, while very American and hyper-caustic, are well worth reading. The book forms a moderately up-to-date review of medicine with a strong bias towards the American schools. It should be of help to the practitioner who desires to keep abreast of modern medical science, and for those who believe themselves not in need of such assistance it may still make an appeal as medical literature of much interest and yielding some amusement.

Modern Operative Surgery. Edited by H. W. CARSON, F.R.C.S., Senior Surgeon to the Prince of Wales' Hospital, Tottenham. In two volumes: Volume 1, with 365 Figures and two Plates, pp. 784; Volume 2, with 370 Figures and four Plates, pp. 784. London: Cassell & Co. Ltd. 1925. Price £3 3s.— This work, which is a successor and companion to Choyce's *System of Surgery*, is a most welcome addition to our English surgical literature. Its aim is to give a practical and authoritative account of all modern surgical operations. Each section is written by one who is an acknowledged authority on the subject. As is the case in all composite works, some sections are of much greater value than others. Anæsthesia is by Blomfield, and gives a short but practical account of the subject with due notice of spinal, regional and colonic anæsthesia. Sir Henry Gauvain contributes a most useful article on surgical tuberculosis, dealing chiefly with conservative methods. The chapters on general orthopædics and joints, by Elmslie and Verrall respectively, are astonishingly short, and both in matter of illustrations and text quite out of proportion to the rest of the book. Operations on tendons and amputations by Elmslie are good and practical, and in the latter section the omission of obsolete classical methods is a welcome improvement on other large systems. The sections on bone surgery (fractures, bone-grafting, etc.) is by Hey Groves, and gives an up-to-date account of modern operative methods. Thoracic operations by Warren and spinal cord surgery by Walton are on usually accepted lines and call for no special comment. The articles

on nerve and vascular surgery by Platt and Drummond respectively are both very excellent presentations of the subjects, embodying the recent lessons of military surgery. Sampson Handley writes on the general surgery of malignant disease and that of the breast in particular. In the latter he regards the use of radium as necessary and he employs drainage very extensively. The chapters on abdominal operations have been written by Carson himself, and these represent the modern practice of English surgeons very faithfully, the works of Moynihan, Sherren and Miles having been freely drawn upon with due acknowledgment. The other most notable sections in the book are those dealing with the urinary organs by Sir John Thomson-Walker and plastic surgery by Gillies. Chapters on special regional surgery, the brain, ear, eye, nose, larynx, etc., are by well-known specialists. The book is very well illustrated, and uniformity of style is secured by all the figures having been specially drawn for this work by Mr. George Dupuy. Both editor and publishers are to be warmly congratulated on the production of a very notable achievement, namely an authoritative work of moderate size and expense, which nevertheless embraces the entire field of modern operative surgery. We confidently expect that in the next edition the orthopædic section will be more adequately dealt with.

On the Breast. By DUNCAN C. L. FITZWILLIAMS, C.M.G., M.D., Ch.M., F.R.C.S. Pp. xv., 440. London: William Heinemann. 1924. Price 30s.—To those in search of an up-to-date book on the diseases of the breast this may be cordially recommended. Much of the substance of the book of course follows stereotyped lines, clearly expressed and interestingly written and well illustrated. The principal value of this particular monograph, in competition with its rivals, lies in its excellent references to old and out-of-the-way cases, and in its capable criticism of Sampson Handley's permeation theory of the spread of cancer from the mammary gland. We are glad to see the use made of Sir Lenthal Cheatle's work on the "præmial breast," and of Piney's researches on bone metastases. The advice given as to treatment of the various conditions described follows sound and well-travelled lines. The pathology, nevertheless, strikes us as being a little old-fashioned, in the light of the work of the best modern American pathologists such as Ewing. There are some very interesting problems, such as the rarity of cancer of the female breast in Japan, the evidence for the apparent special susceptibility of the mammary gland which has never functioned, and the remarkable influence exerted by X-rays on the encephaloid type of cancer, which are not referred to in the book, but which were recently discussed in this journal.

Facial Surgery. By H. P. PICKERILL, C.B.E., M.D., M.S. Pp. xvi., 162. Edinburgh: E. S. Livingstone. 1924. Price 21s. net.—The surgeon who takes *Facial Surgery* for his guide in operations on the face will win deep gratitude from his patient. To few handicaps are we so sensitive as to facial disfigurement, for it at once hinders easy intercourse and reduces our attractive qualities. The public therefore are quickly appreciative of the surgeon's efforts to eradicate or minimise physical stigmata which are so painfully obvious. The author handles his task with zeal and enthusiasm which extend to the smallest details and stamp the book as a scientific work. The basic principles are clearly enunciated. He insists on the need for absence of tension in grafts used to cover defects. For this reason he prefers grafts derived from distant spare areas, such as the front of the arm, rather than flaps drawn across the deficient part from the skin around it. Very sound instruction is given on the need for cell to cell contact of graft and its bed in the Thiersch and Wolfe methods, and this is ensured by an overlying stout compress fixed in place for ten days. The plentiful illustrations are mainly cases of soldiers hideously defaced by the war and remarkably restored, often by monster grafts. The application of methods thus elaborated to civilian cases is given helpfully, as well as the chapter on harelip and cleft palate. The book closes with a lucid description of a bold and apparently effective operation for complete ankylosis of the jaw joint. When so great an authority omits any reference to the treatment of partial ankylosis and derangements of this joint one concludes operation is not generally useful for such conditions.

Goitre. By PROFESSOR F. DE QUERVAIN. Translated from the French by J. SNOWMAN, M.D., M.R.C.P. (with 118 Illustrations and a Bibliographical Appendix). Pp. xii., 247. London: John Bale, Son and Danielsson Ltd. 1924. Price 21s.—Professor de Quervain, of Berne, has in this book provided the reader with a lucid, succinct and practical account of the principles and methods adopted in his clinic for the treatment of goitre. Such an account from such a source will prove deeply interesting to all who have to treat the disease. The surgical anatomy and physiology of the thyroid gland is first considered, then the pathological anatomy and physiology of goitre, then, in order, diagnosis, including skiagraphy, prophylaxis, non-operative, operative and post-operative treatment and prognosis. We note that local is preferred to general anæsthesia and the technique for the production of the former described. The author writes: "The great advantage of this method is that we have the function of the recurrent laryngeal nerve under control at any moment of the operation," and "it does away

almost entirely with vomiting." The early ligature of the inferior thyroid arteries in the course of operation, before exposure of the capsule of the goitre, is strongly advised wherever possible. For the removal of goitre tissue a so-called "melon-slice" incision is recommended by which portions of both lobes of the gland and of the isthmus are removed. Hemi-thyroidectomy is reserved for a small minority of cases. A special feature of the book is the number and excellence of the illustrations. The translation reads as if the work had been written primarily in English, and the text is printed in clear type on good paper.

Postgraduate Lectures. With Preface by SIR THOS. CLIFFORD ALLBUTT. Pp. xv., 216. London: John Bale, Sons & Danielsson Ltd. 1922.—The Preface is itself a contribution of much interest and value, and we make no apology for citing the statements of the distinguished writer, who furnishes the most practical critique of the series of lectures in this volume. "The perusal of the lectures in this volume will go far to convince the most self-contained of practitioners that in our time without periodical class teaching and co-operative practice he cannot efficiently equip himself." The lectures of Sir George Savage on "Syphilis and Insanity," of Sir William Hale White on "The Prognosis of Exophthalmic Goitre," of Dr. Wilfred Harris on "Paroxysmal Trigeminal Neuralgia and its Treatment," serve as examples of the selection of subjects dealt with by colleagues who have contributed to our knowledge in such large measure as to constitute them authoritative, but the same may be said with equal justice of each and all the others. The ten lectures were delivered before the Fellowship of Medicine at the Royal Society of Medicine and Sir J. Y. W. MacAlister in his introductory note is justified in stating that "we are indebted to the enterprise of Messrs. Bale" in the production of this the first volume, and which we understand has proved so encouraging that a further volume may shortly be expected.

Pye's **Surgical Handicraft.** Edited and largely re-written by W. H. CLAYTON-GREENE, C.B.E., B.A., M.B., B.C. (Camb.), F.R.C.S. (Eng.). Ninth Edition. Pp. xvi., 619. Illustrations 344, with Plates XIV. Bristol: John Wright & Sons Ltd. 1924. Price 21s.—The new edition of this well-known text-book appears as a weighty volume of over six hundred pages, and it may well be thought that the time has come to see if some reduction in size cannot be managed without impairing the usefulness of the book. It strikes one at once that a section on Poisons is out of place in a surgical manual and, good as it is, it might well go. Moreover, in much of the descriptive writing

there is a good deal of unnecessary verbiage, and much space might be saved by courageous use of the blue pencil in reducing this. The book is very freely illustrated, which is all to the good, and the illustrations are on the whole adequate, although some of the blocks which show instruments with bone handles might well disappear from the next edition. The instruction given is sound and, on the whole, complete, and few omissions of importance are to be found. In the Urinary section some reference might be expected to Pezzer's tube, which is in such general use, and something more than a mere reference to tests for renal efficiency would be of value. One more criticism and we have done. Is it not about time that the hot-bath treatment of strangulated hernia finally disappeared from the text-books, for how many students or house surgeons of the present generation have ever seen it carried out, or even heard it mentioned in bedside teaching? Having dealt with certain blemishes, we must state in fairness that they are few and of small importance in comparison with the vast amount of information contained in a book which has been the stand-by of house surgeons and the like for forty years past. We can cordially recommend the present edition as being likely to sustain and increase a reputation which has been steadily built up during that time.

The Advance of Orthopædic Surgery. By A. H. TUBBY, C.B., C.M.G., M.S. Lond., F.R.C.S. Eng. Pp. xii., 144. London: H. K. Lewis & Co., 1924. Price 7s. 6d. net.—This small volume consists of a reprint of six articles which Mr. Tubby originally wrote for the *Clinical Journal*. As articles they are quite interesting, but they contain little which a student would not find adequately described in any modern work on Orthopædic Surgery, such as the excellent book by Lovett and Jones. In the opinion of the reviewer it would have been better to reserve the articles for inclusion in any future edition of Mr. Tubby's work on *Deformities and Diseases of the Bones and Joints* than to produce them in separate book form.

Dosage Tables for Deep-Therapy. By FRIEDRICH VOLTZ. Pp xii., 98. London: William Heinemann, 1922. Price 10s. 6d.—A useful book for those using the Erlangen methods. It is purely technical and deals with dosage of X-rays. It saves the radiologist a lot of arithmetic by having the tables worked out.

Ultra Violet Rays in the Treatment and Cure of Disease. By PERCY HALL, M.R.C.S., L.R.C.P. Pp. xvi., 110. London: William Heinemann. 1924. Price 7s. 6d.—This book on the curative value of Ultra Violet Radiations supplies a great need. It sets out clearly and lucidly its uses and abuses, and should be read by all interested in the newer methods of treatment.

Editorial Notes.

The Royal Visit.

THEIR Majesties the King and Queen are conferring a great honour on the University of Bristol as well as the city which it adorns when on June 9th His Majesty The King opens the new buildings, the magnificent gift of Sir George Wills, Bart., and of his brother the late Mr. Harry Wills, in memory of their father, Mr. H. Overton Wills, who did so much towards establishing the young University in its earlier years by his active co-operation with other illustrious citizens whose memory we cherish with gratitude. Deep regret is felt in that Mr. H. H. Wills cannot share with his elder brother, Sir George, the great joy of seeing their completed work formally inaugurated and honoured by the gracious presence of the King and Queen.

We have felt that such an occasion, a great day in the annals of the City of Bristol, calls for a special number of the Society's *Journal*.

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The Medical Faculty of the University of Bristol.

THE complete equipment of the School of Medicine in Bristol, at least as regards its buildings, is an event that we cannot doubt foreshadows an expansion of scientific achievement and development worthy of the historic Bristol School in the past. Dr. J. A. Nixon, Professor of Medicine in the University, has but lightly touched on a few of the mile-stones carrying us back through some centuries to the time when to-day's achievement was but a prophetic conception, but within the limitations imposed has presented

in outline the ample equipment the University affords for the education of the prospective graduate in the profession of medicine, and further for postgraduate research, and this we are convinced will appeal to all who are interested in medical education and progress.

We need make no apology by citing some words of John Ruskin, quoted by "Flambeau" in the *Wills's Works Magazine*: "Education is the leading of human souls to what is best, and making what is best of them. The training which makes men happiest in themselves also makes them most serviceable to others."

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Notes on the New Buildings of the University.

By the courtesy of the Editor of the *Wills's Works Magazine* we are enabled to cite from Mr. G. H. Oatley's description of the new main buildings the following notes:—

"The building contains about fifty rooms, in addition to the Great Hall, Libraries and rooms for assembly.

"The original design was prepared at the close of 1912.

"The earlier buildings are Gothic, the flexibility of which style lends itself to obtaining windows of any size and shape required without the limitations imposed by symmetrical treatment.

"Furthermore, the necessity of obtaining on the site the maximum accommodation possible dictated the building of many floors.

"Again, the freedom of the Gothic style is more suited to a crowded site adjoining narrow thoroughfares.

"The Perpendicular phase of Gothic which was adopted is thoroughly English and suited to the climate and the temperament of the people. On these grounds the indigenous was followed rather than the exotic.

"The Tower is 57 ft. 6 in. square at the lower stage, with a height of about 215 ft. from the street, and is finished with an octagonal Belfry. As a dominating landmark of the neighbourhood its function is to compel attention to the existence of the University and, further to this end, it was designed to close the vista from the bottom of Park Street, the main artery between Bristol and Clifton.

"The Main Entrance is from Queen's Road and is in the base of the Tower. This leads into the Entrance Hall, 85 ft. by 32 ft., vaulted in fan vaulting, which rises to a height of 72 ft. from the floor. From this hall two parallel flights of stairs lead directly to the Great Hall, which is approached through a vestibule, or crush space, about 78 ft. by 20 ft., also vaulted in fan vaulting.

"The Great Hall—the body of which consists of six bays and measures 100 ft. by 50 ft., with a recess at the southern end containing two superimposed galleries and, at the north end, an apsidal recess with raised seats for Senate (or small orchestra) with organ behind it—is covered by a hammer-beam roof in English oak, ceiled at the collar, at a height of 55 ft.

"West of the vestibule to the Great Hall is a corridor leading to the Art Gallery, with which there are communicating doors for throwing the two buildings together on special occasions. Off this corridor, on the south side, is the Reception Room, 64 ft. by 33 ft. and 20 ft. high to the crown of the ornamental plaster ceiling. Its walls are panelled in oak; it has a Minstrel Gallery at one end and an Oriel Window at the other. Adjoining it is a Robing Room.

"The Council Room is duodecagonal, having a diameter of 41 ft., and is vaulted in stone. The room is panelled in oak with linen-fold panelling to the height of the window cills.

"The Library, 101 ft. by 34 ft. and 31 ft. high to the

crown of the ceiling, which is of ornamental plaster, with pendants, has bookstacks arranged to form alcoves, and a gallery around it similarly planned.

"The Medical Library at ground floor level is of the same size as the Library last mentioned. In the Basement underneath this are the **rooms of the Medico-Chirurgical Society.**

"The Great Bell, cast by Messrs. John Taylor and Company, of Loughborough, weighs nearly ten tons. Its note is the lower E flat, and it is pronounced by experts in campanology to be, from the musical point of view, the finest E flat bell in Europe and, in all probability, the finest bell of its note ever cast; the casting itself is perfect and the tone is resonant, pure, and of a fine rich musical quality; the bottom octave of the chord (or hum note) is wonderful, giving forth a most impressive and powerful "boom," yet, withal, so round and musical that it is possible to stand close by and hear it with pleasure."

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Colston Research Society.

THE Annual Dinner was held on Friday, May 22nd, at the University (Victoria Rooms), under the presidency of the Vice-Chancellor. The principal guests were the Right Hon. Lord Eustace Percy, Minister of Education, and Sir Ernest Rutherford, O.M., LL.D., F.R.S. There was an attendance of close on 100. The subscription list amounted to over £550, which was slightly in excess of the previous.

The Society continues to increase the number of its supporters and thereby to extend the range of its activities

MEETINGS OF SOCIETIES.

Bristol Medico-Chirurgical Society.

February 11th, 1925.

In the absence of the President, MR. J. LACY FIRTH took the chair.

MR. PERCY SARGENT, C.M.G., D.S.O., M.S., read a paper on **"The Present Position of Surgery of the Nervous System,"** which appears in this issue (page 101). A vote of thanks was proposed to Mr. Sargent for the very interesting paper, and especially for the lantern slides which had illustrated it.

MR. A. W. ADAMS briefly summarised notes of a case of **"Spinal Tumour"** which he had shown at the beginning of the meeting.

March 11th, 1925.

The President, Dr. J. O. SYMES, in the Chair.

Dr. James Swain, C.B., C.B.E., M.S., was elected an Honorary Member of the Society. Dr. Swain had been for twenty-five years a member of the Editorial Committee of the Society's *Journal*, and for many years longer a very active member of the Society. The President, in announcing the result of the vote, pointed out that Honorary Membership was very rarely conferred, there being only two other living Honorary Members.

MR. H. CHITTY, M.S., F.R.C.S., showed three cases :—

1. Osteomalacia in a girl of 18. Union of ununited fractures of the tibiæ followed local injections of colloidal magnesium.

2. Ununited fracture of the tibia in a child of 5. Local injections of magnesium and a rib graft had alike proved ineffectual.

3. Double pleural empyema in a child. Both sides of the chest were opened at the same operation, with perfect result.

MR. A. W. ADAMS, F.R.C.S., showed a case of **"Malignant Disease of the Thyroid, with Secondary Glands, relieved by Operation."** Specimens and sections were shown with the case.

DR. R. C. CLARKE, O.B.E., M.R.C.P., read a paper on **"The Catarrhal Child,"** which is to be published in another journal.

J. Taylor

Wednesday, April 8th.

DR. J. O. SYMES, President, in the Chair.

DR. PATRICK WATSON-WILLIAMS read a paper on **"Some Points in the Differential Diagnosis of Focal Infection in the Nasal Sinuses causing Ocular and other Systemic Infections,"** illustrated by lantern slides.

MR. A. RENDLE SHORT read a paper on **"Diagnosis of the Dyspepsias."**

Both of these papers are published in this issue (*vide* pp. 88 & 121).

Obituary.

JAMES TAYLOR.

MANY are those who feel deeply the loss of a good friend and valued colleague by the death of James Taylor on March 22nd, at the age of seventy-one. His father, who was in practice in Ashley Road, sent James, the elder of his two sons, to the Bristol Medical School, who after qualifying by taking the M.R.C.S. proceeded to Edinburgh University in 1874 for further study, with a view to taking his degree, but unfortunately his father's death in 1876 compelled his return to Bristol to take on his father's practice. He continued to live with his mother at Wellington House, Ashley Road, up to the time of her death, when he removed to his house in Alma Road.

During nine years he rendered good service to this Journal as the Editorial Secretary, and in 1906 was elected President of our Medico-Chirurgical Society.

James Taylor was one of the earliest pioneers in Röntgen ray work, towards the development of which his previous experience in photography was very helpful. Even eighteen years ago his skiagrams of conditions involving special difficulties, such as nasal sinuses and particularly his stereoscopic plates, were among the first successful examples, in this country, at any rate. When one recalls the relatively crude results obtained at the outset, and how little was foreseen of the later wide range of the sphere of usefulness, and the highly-developed technic that evolved, we realise how greatly medical progress in relation to this aspect of scientific work was indebted to Taylor, who had to depend largely on his own initiative and

patient perseverance. He founded the Skiagraphic Department at the Bristol Royal Infirmary in 1898, and took an active share in the development of X-ray therapy, contributing an able article on "X-ray Therapeutics" to this Journal in 1906.

On the outbreak of the Great War Taylor, who held a Captain's commission, R.A.M.C.T., was placed in charge of the skiagraphic work at the Second Southern General Hospital, where his untiring and devoted work was invaluable, and was continued at the Royal Infirmary till he resigned in 1918 the charge of the department which he had held for twenty years.

Taylor inherited a love of music from his father, and for a long period he and his double-bass were an essential feature of most Clifton amateur concerts, and more particularly he constantly assisted in the performances of the Clifton Amateur Operatic Society and the Medical Dramatic Club, until his health began to fail. He was devoted to golf, and furthermore was a keen Mason, being a Past Master of St. Vincent Lodge, in which he was initiated in 1898. He further was appointed Provincial Grand Organist in 1904.

The appreciation of our late colleague in the *Bristol Times and Mirror* so truly reflects the man that we cannot refrain from quoting from it:

"He never came prominently before the public, yet he had a host of friends, and was particularly popular among his professional brethren. This may be attributed to the fact that he was a man of wide interests and keen about many things outside medicine. His patients really loved him, and his kindly, gracious manner often did them as much good as the treatment they received at his hands. Of late years their number greatly diminished, and became a mere handful, because, without definitely retiring from practice, physical infirmities restricted his activities, and he gave up attending all save those whom he had known all their lives. To them he ministered with his customary care and patience, though it obviously became a labour to go his daily rounds."

He was a bachelor and had lost by death every near relative, his only brother, Frank, who had practised in Redland, having died of tuberculosis in 1886 at the age of twenty-nine; but his memory will long be cherished by colleagues and friends, by all of whom he was greatly beloved.

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Photo. Eves, Clifton.

Arthur B. Prowse.

ARTHUR BANCKS PROWSE, M.D., F.R.C.S.

ARTHUR BANCKS PROWSE, whose death after a long illness bravely and patiently borne we all deeply regret, was born on March 27th, 1856, at Millbrock, near Plymouth. He was the eldest son of Dr. Wm. Prowse and grandson of Dr. James Prowse, who practised for many years in St. James' Barton. His early education was received at Amersham Grammar School and Amersham Hall. His medical training began at Liverpool and was completed at St. Mary's Hospital, London. In 1877 he took his M.R.C.S. and in the following year his M.B. London, with honours in all subjects. In 1881 he became M.D. and in 1882 F.R.C.S. He filled the posts of House Surgeon to the Westminster Ophthalmic Hospital and the London Fever Hospital and was House Physician and Medical Registrar at St. Mary's Hospital, where he also obtained a scholarship in Anatomy. Early settling in Bristol, he was appointed Assistant Physician at the Royal Infirmary in 1883, and continued on the staff for many years as Physician, Dean of the Medical Faculty and Lecturer in Materia Medica, Pharmacology and Therapeutics. He also acted as Hon. Physician to the Blind Women's Home, Clifton, the Clifton Crêche and the Blue Maids' Orphanage, Ashley Hill. When the British Medica Association met in Bristol in 1895 his services as Hon. Financial Secretary were invaluable.

At the outbreak of the War he was an *à la suite* officer of the 2nd Southern General Hospital. Colonel Bush writes of his work: "His sound judgment and the great attention he gave to details very soon proved him to be a most methodical officer, his services being utilised as a physician in the wards, and as a member or president of a vast number of Medical Boards. He was also placed in charge of the arrangements for moving the sick and wounded soldiers to and from the auxiliary hospitals attached to the 2nd Southern. In June, 1917, when Colonel Paul Bush was called to do duty in France, the command of that establishment was conferred on him with the rank of Lieut.-Colonel. He remained as administrator in command until the hospital was closed on April 22nd, 1919. His work and his personality endeared him to the many thousand patients who passed through his hands during the Great War. The officers, non-commissioned officers and men of his unit looked upon him as a very able administrator and a good friend."

In addition to his purely professional duties he was a man of varied activities and many hobbies. He was never idle, and when at last confined to his bed he was surrounded with books and papers, and as long as his hand could hold a pen was busy with one or other of his favourite pursuits. It was

said by an old Spanish physician that if you know only medicine you don't know that, and no one followed this advice more than he. A great lover of Devonshire, and knowing almost every inch of ground on Dartmoor, and deeply interested in its antiquities, he compiled from the fifty-six volumes of the Devonshire Association for the Advancement of Science, Literature and Art a complete index of place-names—a work which involved an immense amount of labour and patience—and up to the time of his death he was preparing a card index on the origin of all the place-names in Devon for the English Place-Names Society. To local antiquarian research he devoted much time, contributing two papers to the Bristol Naturalists' Society's *Transactions* on "Some Ancient British Remains on Clifton Down," and "Some Ancient British Remains near Long Ashton, Somerset"; but perhaps the most important work he did in this direction was when some years ago he succeeded in tracing the long-lost course of Wansdyke from Maes Knoll to the foot of Dundry Hill. In a letter written by Mr. Albany F. Major, and lately published in the *Bristol Times and Mirror*, he says: "He read an account of this to the local society, but curiously enough the importance of this discovery was not recognised and the paper was never printed. Nothing was known of it outside his immediate circle till in 1923, on one of my visits to Somerset to investigate the course of Wansdyke, I fortunately heard of it and got into touch with Dr. Prowse. He most kindly placed all his knowledge at my disposal, took me over the ground, and joined me in further investigations in that and the following year. It was my great pleasure to be able to bring his discovery to the notice of the Somersetshire Archæological and Natural History Society." Dr. Prowse was long associated with the Bristol Naturalists' Society, of which he was formerly a President, and for the great interest he took in it and for his long and valuable services as Librarian he was elected an Honorary Member. He was most methodical in all he did, sparing no labour, and his work was characterised by extreme neatness and accuracy. He was a man of pronounced and very strong opinions, and although they often failed to coincide with those of his friends they were never based on the mere *ipse dixit* of anyone, but were the result of most painstaking research and deep knowledge. Compromise was alien to his nature, and his somewhat reserved manner debarred those who did not know him from realising the beauty of his character. Deeply religious, his religion seemed to be bound up with his love of flowers, and he must have experienced the same feeling that Brown, the Manx poet, had:

> "Not God; in gardens! when the eve is cool?
> Nay, but I have a sign!
> 'Tis very sure God walks in mine."

One of his prospective joys was when he could live elsewhere and have a garden of his own. He made the most, however, of the little patch in Lansdown Place, utilising every inch and growing many rare and beautiful plants. But his long connection with the Parish Church, Clifton (of which he was warden for twenty-seven years and for which he worked so hard, keeping the accounts in his usual careful manner and saving the parishioners much expense by his personal labours), enabled him to have the churchyard under his care. He found it a wilderness: he left it one of the beauty spots of Clifton. His memory will always be associated with this happy record of his skill and love of flowers. Many are the rare and fine flowering shrubs he obtained for it, and it was on his initiative that the trees lining the walk from Victoria Square to Clifton Hill were replenished and trained to form the beautiful avenue it is. Bacon said: "God Almighty first planted a garden; and indeed it is the purest of humane pleasure." His love of flowers and love of music reflected his character, and it may be said of him as of Sir Galahad:—

> "His strength was of the strength of ten
> Because his heart was pure."

H. L. EVANS, M.B., C.M. Ed.

THE death of Herbert Lavington Evans, of Goring-on-Thames, on April 9th, at the age of 65, due to acute pneumonia following influenza, is a grave sorrow to his old Bristol Medical School friends. He was educated at Clifton College, UniversityCollege, Bristol, Edinburgh University and at Guy's Hospital. He was a Clinical Assistant at the Bristol Eye Hospital before he settled in practice at Goring-on-Thames thirty-six years ago, and where he was beloved and held in the highest esteem by a very large number of patients. In his younger days he was a fine athlete and distinguished himself at football firstly at Clifton College and later he played for Scotland in International Rugby football matches for three seasons. H. L. Evans was a man of great charm of character and ever a friend to depend on.

The Library of the Bristol Medico-Chirurgical Society.

The following publications have been received since the publication of the List in January, 1925.

	May, 1925.
American Laryngological Society (1)	1 volume.
Australasian Medical Congress (2)	1 ,,
Mr. F. Richardson Cross (3)	1 ,,
Dr. D. S. Davies (4)	1 ,,
Delegates of the Clarendon Press (5)	2 ,,
Dr. J. H. Drysdale (13)	19 ,,
Mr. E. W. Hey Groves (6)	1 ,,
Dr. David Hooper (7)	2 ,,
Munro-Smith Fund (8)	3 ,,
Radium Institute (9)	1 ,,
Smithsonian Institution (10)	1 ,,
Mr. A. Rendle Short (11)	1 ,,
Dr. P. Watson-Williams (12)	1 ,,

Unbound periodicals have been received from Dr. Carey Coombs, Mr. Flemming, Mr. Hey Groves, Dr. J. A. Nixon, and Dr. B. M. H. Rogers.

THE ONE HUNDRED AND TWELFTH LIST OF BOOKS.

The figures in round brackets refer to the figures after the names of the donors. The books to which no such figures are attached have either been bought from the Library Fund or received through the *Journal*.

Barton, E. A. ..	*Essentials of Infant Feeding*	1925
Beaumont and Dodds	*Recent Advances in Medicine* .. .. .. (11)	1925
Berkeley, Comyns	*Gynæcology for Nurses* .. .. .. 4th Ed.	1925
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Local Medical Notes.

University of Bristol.

JUNE 9TH. Opening of the new buildings by H.M. The King.

Their Majesties The King and Queen will arrive at the University at 2.45 p.m. and will leave about 4 o'clock. Guests must be in their places in the Great Hall by 1.30 p.m.

After the departure of Their Majesties a number of guests have been invited by the Council and Senate to tea in the grounds of the Royal Fort House, and at 8.30 p.m. to a reception to be held in the University.

Founder's Day, June 12th. At 11 a.m. a special service will be held in the Cathedral. Preacher: The Right Rev. The Lord Bishop of Truro. At 3 p.m. the cricket match, Academic Staff *v.* The Undergraduates, will be played on the University Athletic Ground at Coombe Dingle.

Opening of the new Homœopathic Hospital.—On May 26th the new buildings of the Homœopathic Hospital were opened by Her Highness Princess Helena Victoria. The Hospital has been erected on the grounds of Cotham House, and is the gift of Mr. Melville Wills in memory of Captain Bruce Wills, his eldest son, who was killed in the War at St. Eloi while helping to carry a wounded officer. The building is a particularly handsome edifice, with modern and efficient equipment, including a complete installation of X-ray apparatus, the gift of Mr. Melville Wills.

British Medical Association.—At the Annual Meeting at Bath, July 21st to 24th, F. G. Thomson, M.A., M.D., M.R.C.P., will be elected President.

Many members of the Medico-Chirurgical Society and other colleagues of the Bath and Bristol Branch of the Association hold office in the various sections, viz.:—

Medicine: Vice-President, Professor J. A. Nixon, C.M.G., M.D., F.R.C.P.; Hon. Secretary, James Lindsay, M.D., M.R.C.P.

Surgery: Vice-President, F. Lace, F.R.C.S., and C. F. Walters, F.R.C.S.; Hon. Secretaries, A. de V. Blathwayt, M.R.C.S., and A. L. Fuller, F.R.C.S.

Obstetrics: Vice-Presidents, D. C. Rayner, F.R.C.S.; Hon. Secretary, W. H. Duncan, F.R.C.S. Ed.

Pathology and Bacteriology: Vice-Presidents, Rupert Waterhouse, M.D., M.R.C.P.; Hon. Secretary, James Cowan, M.B., R.A.M.C.

Neurology and Psychological Medicine: Vice-President, Norman Lavers, M.D.; Hon. Secretary, Ray Edridge, M.R.C.S., L.R.C.P.

Therapeutics (including Balneology and Radiotherapy): Vice-President, Preston King, M.D.; Hon. Secretary, Cecil Terry, M.B.

Laryngology, Otology and Rhinology: Hon. Secretary, H. N. Barnett, F.R.C.S. Ed.

Diseases of Children: Vice-President, Carey F. Coombs, M.D., F.R.C.P.; Hon. Secretary, Vincent Coates, M.C., M.D.

Ophthalmology: President, W. Mardon Beaumont, M.R.C.S. (Bath); Vice-President, C. H. Walker, F.R.C.S.; Hon. Secretary, R. Colley, M.B., D.O.M.S.

Orthopædics: President, Professor E. W. Hey Groves, M.S., F.R.C.S.; Hon. Secretary, J. S. Levis, M.C., M.B.

Public Medicine: Vice-President, G. F. Blackett, M.D. (Bath); Hon. Secretary, R. E. Thomas, M.D.

Medical Sociology: President, Charles E. S. Flemming, M.R.C.S., L.R.C.P.; Hon. Secretary, C. A. Marsh, M.D.; Hon.
Local General Secretary, Mr. W. G. Mumford, O.B.E., F.R.C.S.; Hon. Assistant Secretary, Dr. R. G. Gordon.

University of London.—Dr. Patrick Watson-Williams has been appointed to the "Semon Lectureship in Laryngology" in the London University. The lecture will be delivered at 5 p.m. on November 5th, 1925, at the Royal Society of Medicine, London.

EXAMINATION RESULTS.

University of Bristol.—Students of the University have recently passed the following examinations:—

DIPLOMA IN PUBLIC HEALTH.—*Pass:* V. W. W. Ryan. *Part II. (Completing Examination):* J. Ledingham. *Part I. only:* N. A. NcDonald Rodger, S. Sharpe.

M.B., CH.B. (*Part II.*)—*Final Examination.—With Second Class Honours:* D. E. Crellin (Distinction in Medicine), C. I. Ham (Distinction in Surgery and Obstetrics), A. H. Lowther (Distinction in Pathology and Obstetrics), R. E. Lucas (Distinction in Medicine). *Pass:* A. F. Alford, K. F. Alford, A. S. Cox, S. J. H. Griffiths, F. H. Hollingshead, J. A. Hooker, K. F. Platt, D. C. Prowse, L. G. Robertson (Distinction in Obstetrics), H. Rogers, G. M. Terrell, M. M. Tewater. *In Medicine* (*Completing Examination*): E. R. Clutterbuck. *In Surgery* (*Completing Examination*): H. M. Dixon. *In Public Health* (*Completing Examination*): A. H. Marshall. *In Group I. only* (*Surgery and Obstetrics*): E. E. Benson, M. P. Posthuma, H. J. Satchwell, K. M. Willmore. *In Group II. only* (*Pathology, Medicine and Public Health*): C. F. R. Killick.

M.B., CH.B. (*Part I.*)—*Final Examination.—Pass* (*including Forensic Medicine and Toxicology*): G. W. R. Bishop, J. F. O. Bodman, M. E. Drew, F. S. Dymond, G. L. Feneley, F. R. Gedye, A. P. Gorham, M. B. Harvey, T. P. Lalonde, M. E. J. Packer, C. B. Perry, L. B. Phillips, E. S. Rogers, A. A. B. Vincent.

M.B., CH.B. (*Part I.*) *2nd Examination.—Pass:* I. J. Armstrong, R. A. S. Cory, A. A. Dowling, G. R. Fells, A. C. Fisher, N. D. Gerrish, A. D. James, R. J. Krogh, M. F. Potter, K. H. Pridie, H. D. Pyke, N. C. Tanner, L. E. Vine, G. J. West. *Part II.:* C. D. J. Ball, T. H. Berrill, T. A. Brand, T. L. Cleave, H. B. Murgoci (with Distinction in Anatomy), R. M. Norman, E. M. Redman, P. C. Vine, T. B. Wansbrough, A. R. Williams (with Distinction in Anatomy).

B.D.S.—*2nd Examination.—Pass* (*in Dental Anatomy only*): W. M. Evans.

F.R.C.S. ENG.—*Final Examination:* J. R. Nicholson-Lailey, M.B., Ch.B. (Bristol), M.R.C.S., L.R.C.P.

M.R.C.S.—*Final Examination:* Elizabeth E. Benson, R. S. Kemm, W. George Rees Morris, Dorothy E. Crellin, Constance I. Ham, J. E. S. Hamilton, F. S. Hunter (Birmingham), A. C. Lysaght, D. C. Prowse, S. M. T. Smith.

PRIMARY F.R.C.S. ENG.—E. Langford, M.B., Ch.B., Bristol.

L.D.S.—*Final Examination* (*Part I.*): H. Hazell. *Part II.* (*Completing Examination*): G. Meadows, C. I. T. Morgan.

Medical colleagues who are not members of the Society are invited to subscribe to the *Bristol Medico-Chirurgical Journal.* 10s. 6d. annually.